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ABSTRACT

This publication compares five major regulations and standards on architectural accessibility. It provides a comparison summary of 20 areas within (1) the standards of the Architectural and Transportation Barriers Compliance Board (ATBCB), (2) the standards of the American National Standards Institute, (3) the regulations of the Federal General Services Administration, (4) the Uniform Building Code, and (5) the regulations of the State Department of General Services, Office of State Architect. Nineteen areas are alphabetized according to a category or topic: Arms, Assembly/Performing Areas, Controls/Operating Mechanisms, Doors, Drinking Fountains, Elevators/Lifts, Handrails/Handgrips, Hazard Warnings, Parking, Passenger Loading/Unloading Zones, Ramps, Routes/Spaces, Seating/Work Surfaces, Signage, Stairs, Storage, Telephones, Toilet/Bathing Facilities, and Windows. The twentieth area is devoted to specifications for dwelling units. With the exception of the dwelling unit section, ATBCB standards are used as the basis of comparison. The text is organized in tabular form and indicates major categories and topics, citation numbers of applicable regulations or standards, differences/no differences from ATBCB, and provisions/no provisions in the other regulations and standards. A "summary of coverage" paragraph provides a condensation of the cited regulations or standards. A glossary is appended. (YLB)

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State of California

SUMMARY

OF

ARCHITECTURAL STANDARDS AND REQUIREMENTS

OFFICE OF STATEWIDE COMPLIANCE COORDINATION
915 CAPITOL MALL ROOM 235
SACRAMENTO, CA 95814

State and Consumer Services Agency
November, 1981

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Acknowledgements

Summary of Architectural
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SUMMARY OF ARCHITECTURAL STANDARDS AND REQUIREMENTS

INTRODUCTION

In June, 1980, Governor Edmund G. Brown Jr., established the Office of Statewide Compliance Coordination (OSCC), by Executive Order B-65-80. OSCC coordinates, monitors and reports state departments' efforts to comply with the Federal Rehabilitation Act of 1973, Section 504 and those portions of Government Code Sections 11135-11139.5 pertaining to non-discrimination and accessibility to state programs and activities by persons with disabilities.

In order to facilitate compliance efforts, OSCC has developed a training program and various informational materials. The Summary of Architectural Standards and Requirements (SASR), is one of these informational publications. It was prepared as a training aid with the assistance of the California Institute on Human Services. The SASR is a comparison of five major regulations and standards on architectural accessibility: the standards of the Atchitectural and Transportation Barriers Compliance Board (ATBCB), the standards of the American National Standards Institute (ANSI), the regulations of the Federal General Services Administration (GSA), the Uniform Building Code (UBC), and the regulations of the State Department of General Services, Office of State Architect (OSA).

In addition to providing a condensed text of the five major architectural regulations and standards, the SASR may assist in analyzing the architectural access of facilities and is designed to be used along with the Program Access Master Planning Guide, Form 9, Checklist on Facility Access. For a copy or technical assistance on interpretation of the SASR, contact the Office of Statewide Compliance Coordination, 915 Capitol Mall, Room 235, Sacramento, California 95814, (916) 323-6975 (voice or TDD).

SASR Revisions or Copy Requests

Comments or suggestions on the SASR are encouraged. A form for that purpose, and to request additional copies, has been included within the publicaiton. Reference Appendix B, SASR Comment/Copy Request Form.

HISTORY OF SUMMARIZED STANDARDS AND REGULATIONS

The regulations and model standards referenced in the SASR are a result of actions by professional organizations, persons with disabilities, state and federal legislatures, to eliminate architectural barriers in the construction of new buildings or renovation of existing facilities. Historically, most facilities were constructed to standards which considered the "average human being". The regulations and standards shown in the SASR consider more universally each of our varying degrees of independence of action, i.e., physical size, visual or auditory acuity and the other senses which affect our independent access and performance of everyday activities. Over 36 million people have disabilities or incur temporary disabling injuries or illnesses. These mobility and sensory impairments may require individuals to use assistive devices such as wheelchairs, braces, visual and hearing aids, canes, walkers, specialized footware, crutches, etc. Consequently, consideration of architectural design needs of people with disabilities is essential to the realization of independent action within our society by persons with disabilities.

ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD (ATBCB)

Section 502(b)(7) of the Rehabilitation Act of 1973, established the Architectural and Transportation Barriers Compliance Board. Congressional amendments in 1978 required ATBCB to develop minimum architectural access guidelines and standards. Consequently, ATBCB prepared a Guidebook to the Minimum Federal Guidelines and Requirements for Accessible Design, January 6, 1981. These standards are intended to be adopted by federal building regulatory agencies and are model standards to ensure facilities financed with federal funds are designed, constructed, or altered to be accessible to, and usable by, physically and sensory disabled persons. Revisions of the standards are based upon continued research by ATBCB, and comments from the public. The January 6, 1981 publication, which was used in the preparation of the SASR is currently being considered for revision. Copies of ATBCB's standards are available from the Architectural Transporation Barriers Complaince Board, 330 C Street, S.W., Room 1010, Washington, D.C. 20202.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

In May 1959, the American National Standards Institute (ANSI), acting on the request of the President's Committee on Employment of the Handicapped, called a general conference of groups vitally interested in architectural accessibility for persons with disabilities. This conference recommended a special project to develop architectural access standards. The project was administered by the Construction

Standards Board of ANSI. These architectural access standards, which were a result of this project, are intended for referral by government building regulatory agencies at the federal, state, county and city levels when designing, constructing, and renovating facilities for people with physical disabilities. Since the initial publication of ANSI standards in 1961, the standards have been subject to periodic review and revision. In 1971 and 1980, revised editions were published. Revisions are considered on a five-year basis from the date of publication. The document referred to in this Summary, No. A117.1-1980, Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People, was published in March 1980, and is the most recent edition. ANSI standards are available from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.

GENERAL SERVICES ADMINISTRATION (GSA)

Standards were developed by the federal government to ensure minimum accessibility for federally owned, leased or federally-funded facilities as defined by Section Two of Public Law 90-480, enacted August 12, 1968, (amended 1978). The specifications presented within these regulations define minimum conditions intended to provide accessibility and usability for individuals whose sensory or physical disabilities limit access to facilities. Except for the Department of Defense, U.S. Postal Service, and the Department of Housing and Urban Development (HUD), which set their own standards, GSA sets the standards for 72 federal agencies. Since 1980, GSA standards have been considered for revision. Revisions will be made in accordance with the Administrative Procedures Act. Standards are considered for revision when the need arises or as Congress dictates. The Accessibility Standards: General Services Administration Public Building Services, October 14, 1980, was the edition used in the SASR. It is available from the Federal General Services Administration, Public Building Services, Washington, D.C. 20405.

OFFICE OF STATE ARCHITECT (OSA)

The Department of General Services, Office of State Architect, administers the California Administrative Code Sections 4450-4458, which incorporate the 1981 Building Standards Code as Part 2, Title 24. The regulations provide minimum standards to safeguard life, limb, health, property and public welfare by regulating and controlling design, construction, quality of materials, use and occupancy, location and maintenance of all state-financed public buildings and structures within the scope of the Code. The regulations are currently being revised to incorporate barrier-free design concepts. Prior to adoption of these new regulations, which become effective July 1, 1982, California is applying

ANSI 1961 standards when constructing new or altering existing state buildings. Adoption of building codes by state agencies is preceded by public notice, public hearings, review, approval and codification by the State Building Standards Commission. Basic Construction Regulations of the State Building Standards Code 1982, used in the SASR, may be obtained from Department of General Services, Documents and Publications, 4675 Watt Avenue, North Highlands, CA 95660.
Technical assistance on interpretation of the regulations of the State Architect may be obtained from the Department of General Services, Space Management Division, 915 Capitol Mall, Room 510, Sacramento, CA 95814, (916) 445-9693. The Space Management Division provides negotiating and contracting services to obtain new and leased space or alterations to existing space that is owned or leased by the state, through delegated authority from the Office of State Architect; interprets and applies state architectural laws in the design, alteration and construction of stateowned and leased space.

Department of General Services, Office of State Architect, 1500 5th Street, Sacramento, CA 95814, (916) 445-5753 ensures state-owned, leased or financed facilities are in compliance with state architectural regulations relating to facility access for persons with disabilities.

Due to differing levels of coverage and use of technology, each of these regulations and standards considers the needs of physically or sensory impaired people and defines parameters on the degree of accessibility provided by construction. ATBCB, ANSI and OSA provide the broadest and most indepth coverage of architectural access designs and construction considerations. Application of a standard may depend upon: 1) governmental jurisdictions and regulatory authority; 2) date of construction or date of alterations; 3) type of construction and facility use; 4) public or private funded construction or alteration; and/or, 5) effective dates of applicable regulations.

Following is a brief outline of some of the most significant areas that should be addressed when designing or constructing facilities to provide architectural accessibility.

Doors that are less than 32" wide are difficult or impossible for many persons who use wheelchairs or other mobility aids to pass through.

Routes and spaces that are too narrow may prevent passage of oncoming foot or wheelchair traffic. Turns or other maneuvers may be impossible to execute in a wheelchair unless allowance is made for the specific turn requirement. Long or circuitous routes without braille or raised lettering signage can cause a blind person or persons who are mentally impaired to become disoriented.

Steep ramps may require the person who is manually propelling a wheelchair to stop frequently or, if traveling down a ramp, to lose control.

Surface textures and changes in surface levels can cause inaccessibility and loss of balance or tripping to persons with mobility impairments and those who require walking aids. Uneven surfaces may jar the controls of motorized wheelchairs out of position. Yet some varying surface textures can alert pedestrians with visual impairments of hazardous situations. Carpeting with a high static discharge may cause people who wear steel braces to experience electric shocks when traveling on the carpet and making contact with metal objects such as doorknobs.

If objects must protrude into a passageway, they should be at a height that permits detection by the sweep of a cane - no higher than 27" above the ground. Persons in wheelchairs experience difficulty in reaching over a protruding object or getting close enough to operate controls if no knee clearances or side clearances are allowed, i.e., drinking fountains, public telephones, lavatories, shelves, and food service equipment.

Hardware on doors or control devices may prove inaccessible to persons with upper limb impairments if tight grasping, pinching or twisting of the wrist is involved in operation. Undue pressure to activate push bars on doors also affects the balance and independent access by persons using wheelchairs and walking aids.

Signage, including lettering size, color, and texture contrast, are important informational and guidance aids to the visually impaired or hearing impaired. Visual alarms or warning devices provide safety or hazard signals to people who must rely on visual cues.

Stair risers that are too high or treads that are slippery can create hazardous access for persons using mobility aids. Stair nosings that protrude and are not rounded cause difficulty to persons who are visually impaired as well as to people who use mobility aids such as canes and braces.

Consultations with access design experts, continued research, and development of an awareness of the design barriers of people with disabilities will ensure that architects and space designers provide cost-efficient and effective architectural access for all persons.

SASR ORGANIZATION

The SASR provides a comparison summary of 20 areas within five regulations or standards for ATBCB, ANSI, GSA, UBC, and OSA. Nineteen of the areas are alphabetized according to a category or topic. The twentieth area is devoted to specifications for dwelling units. With the exception of the dwelling unit section, ATBCB standards were used as the basis of comparison to prepare a "summary of coverage" statement, because ATBCB has the broadest categorical coverage. The dwelling unit section lists OSA regulations and ANSI standards. These are the only two entities that address architectural accessibility of public housing. Each "summary of coverage" paragraph is a para-phrase of the cited

regulation or standard. Where there are significant differences in usage or meaning a coding system was used to indicate the specific differences. In addition, this summary statement includes interpretations of statements based on some exemplary architectural diagrams contained within the cited regulations or standards.

Appendix A contains a glossary of the terms used within the regulations and standards.

NOTE: The regulations and standards in this booklet are subject to periodic changes. Reference the latest editions of the regulation or standard for up-to-date information.

EXAMPLE OF TEXT ORGANIZATION

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
(1) 1. ALARMS						
A. Number	(2) 1190.31 (n) .180 (a)	(3) ND A117.1 4.28.1	NP	NP	(4) NP	If alarm systems are provided, each system is required to be accessible.
B. Audible						
1. Sound level	1190.180 (b)	A117.1 4.28.2	NP	NP		Audible alarms shall produce a sound pressure level that exceeds ambient room or space noise by 15 decibels or any maximum noise level of 20 seconds duration by 5 decibels, whichever is greater (sound levels for alarm signals shall not exceed 120 decibels).(5)
2. Building code	NP	NP	NP	NP	(6) NPTD	(Audible emergency warning systems shall comply with the State Building Standards Code Section 2-7203 of Part 2 of Title 24 of the California Administrative Code).
3. When required	NP	NP	5.12.1	NP	NP	An audible alarm signal shall be provided in buildings which require alarm systems.

(1) This column shows, in alphabetical order, the major category and topic
(2) This column shows the citation number of the applicable regulation or standard
(3) Indicates there are basically no differences (ND) in content or meaning from the ATBCB standard
(4) Indicates there is no provision (NP) within the regulation or standard
(5) The coding "_____", indicates the wordage within the parenthesis can be found in the ANSI cited regulation. Note ANSI, GSA, UBC, and OSA have a different code
(6) NPTD signifies there is no provision to date within the OSA regulation. NPTD statements are categories and areas that will likely be included when the regulations are published within the next few months

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Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC ---	OSA XXX	
I. ALARMS						
A. Number	1190.31 (n) .180 (a)	ND A117.1 4.28.1	NP	NP	NP	If alarm systems are provided, each system is required to be accessible.
B. Audible						
1. Sound level	1190.180 (b)	A117.1 4.28.2	NP	NP		Audible alarms shall produce a sound pressure level that exceeds ambient room or space noise by 15 decibels or any maximum noise level of 20 seconds duration by 5 decibels, whichever is greater (sound levels for alarm signals shall not exceed 120 decibels).
2. Building code	NP	NP	NP	NP	NPTD	Audible emergency vocalog systems shall comply with the State Building Standards Code Section 2-7203 of Part 2 of Title 24 of the California Administrative Code.
3. When required	NP	NP	5.12.1	NP	NP	An audible alarm signal shall be provided in buildings which require alarm systems.
C. Visual						
1. When required	1190.180 (c)	ND A117.1 4.28.1	NP	NP	NP	If audible alarms are provided, then a visual alarm device shall be provided.
2. When not required	NP	NP	5.12.1	NP	NP	Visual alarms are not required, except where an occupant emergency organizational plan has not been established to assure the safe evacuation of handicapped persons.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	QSA	
ALARMS (cont'd)						
3. Location	1190.180 (c)	ND A117.1 4.28.3	5.12.1	NP	NPTD	The visual alarm device shall be located adjacent to the audible emergency alarm or the visual alarm device shall be located within each electrically powered internally illuminated emergency exit sign (requires flashing exit sign) (only needed when an occupant emergency organization plan has not been established to assure the safe evacuation of handicapped persons).
4. Flashing signal	1190.180 (c)	ND A117.1 4.28.3	5.12.1	NP	NP	The visual alarm device shall flash in conjunction with the audible alarm (when needed).
5. Frequency	1190.180 (c)	ND A117.1 4.28.3	5.12.1	NP	NP	The flash frequency of visual alarm shall be less than 5 Hz (when needed).
6. Power Source	1190.180 (c)	ND A117.1 4.28.3	NP	NP	NP	The audible and visual alarm devices shall operate from the same power source.
D. Special Systems						
1. Auxiliary	NP	A117.1 4.28.4	NP	NP	NPTD	In facilities with sleeping accommodations, the sleeping accommodations shall have an auxiliary visual alarm system connection to the building emergency alarm system or shall have a standard 110-volt electrical receptacle into which such an alarm could be connected with its instructions for use provided.
2. Portable devices	NP	NP	5.13.1	NP	NP	A wireless and portable visual emergency alarm device furnished by building management to a deaf person upon request may be provided.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA ***	
ALARMS (cont'd)						
3. Special cases	1190.180	NP	NP	NP	NP	Exception -- specialized systems utilizing advanced technology will be considered on a case-by-case basis.
E. Pull Stations						
1. Clear floor space	1190.180 (d)	NP	NP	NP	NP	Alarm pull stations shall comply with CONTROL and OPERATING MECHANISMS.

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Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
II. ASSEMBLY/PERFORMING AREAS A. Viewing and Seating Positions 1. Number a. Viewing	1190.31 (s)	ND A117.1 4.33.1	NP	NP	2-611 (a)(1) (A)(1) (a)(5)	If assembly performing areas are provided, the minimum number of accessible viewing positions shall be: Total Viewing Positions ATBCB and ANSI / Total Viewing Positions OSA / Accessible Viewing Positions 1 to 25 . . . . . 1 26 to 50 . . . . . 40 to 50 . . . . . 2 51 to 75 . . . . . 3 76 to 100 . . . . . 51 to 300 . . . . . 4 101 to 150 . . . . . 5 151 to 200 . . . . . 301 to 500 . . . . . 6 201 to 300 . . . . . 7 301 to 400 . . . . . 8 401 to 500 . . . . . 9 501 to 1000 . . . . . .2% of Total Over 1000 . . . . . .2% of Total plus 1 for every 100 over 1000 (a reasonable number, but not less than 2). (One additional accessible seat for every 100 total over 500 up to 5000. over 5000 at least 21 accessible seats plus one accessible seat for every 500 total seats over 5000.)

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ASSEMBLY/PERFORMING AREAS (cont'd)						
2. Location						
a. Adjoining configuration	1190.230 (b)(3)	ND A117.1 4.32.3	NP	NP	NP	Accessible viewing and seating positions shall be in an adjoining configuration if only two positions are provided. Additional positions may be single position configurations.
b. Integral part of seating	1190.230 (b)(4)	ND A117.1 4.32.3	NP	NP	2-611 (a)(1) (A)(a) (1)(A) (2)	Accessible viewing and seating positions shall be an integral part of the seating plan and shall be dispersed throughout the assembly area providing sight lines comparable to those for all seating. (No provisions for comparable sight lines. Only requires dispersed seating if total seating totals more than 300.)
c. Alteration exception	1190.230 (b)(h) (i)	NP	NP	NP	2-611 (a)(1) (A)(a) (1)(A) (2)	In alteration work where it is structurally impossible to alter seating locations to disperse seating throughout, seating may be located in collected areas as structurally feasible (however, at least 1% of total seating capacity shall be accessible).
d. Adjoin accessible routes	1190.230 (b)(5)	ND A117.1 4.33.3	NP	NP	2-611 (a)(1) (c)	Accessible viewing and seating positions shall adjoin an accessible route of emergency egress as required in interior accessible routes/spaces (and must comply with fire and panic safety requirements of the State Fire Marshal).
e. Entrance and facility	NP	NP	NP	NP	2-611 (a)(1)	Accessible viewing and seating positions shall be accessible from the main lobby or primary entrance, and shall be on an accessible route linking the viewing and seating positions to an accessible toilet facility.
f. Split level exception	NP	NP	NP	NP	2-661 (a)(5)	When assembly/performing areas have existing seating on upper levels not accessible by ramp or elevator, and the enforcing agency determines that full compliance would create an unreasonable hardship, such upper levels need not be accessible provided all facilities at grade are accessible.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ASSEMBLY/PERFORMING AREAS (cont'd)						
3. Clearance						
a. Clear ground area	1190.230 (b)(1)	ND A117.1 4.33.2	NP	NP	2-611 (a)(1) (A)(2)	Accessible viewing and seating positions shall provide a minimum clear floor or ground area that is 2'9" - 833 mm wide by 4'0" - 1,220 mm long in the direction of view if the approach direction is from the front or back of the viewing position and 2'9" - 833 mm wide by 5'0" - 1,525 mm long in the direction of view if the approach direction is from the side of the viewing position (2'6" - 762 mm by 5'0" - 1,525 mm regardless of approach direction).
b. Wheelchair accommodation	1190.230 (b)(2)	NP	NP	NP	2-611 (a)(1) (A)(3) (a)(1) (B)	Accessible viewing and seating positions shall (may) accommodate one occupied wheelchair or one portable seat to accommodate persons with crutches or leg braces.
c. Surface	1190.230	ND A117.1	NP	NP	NP	Accessible viewing and seating positions shall have surfaces that comply with ROUTES/SPACES (also requires the surface to be level).
d. Semiambulatory	NP	NP	NP	NP	2-611 (a)(1) (B)	In addition to spaces provided for wheelchair users, there shall be seating provided for semiambulant individuals. The number of such seating shall be equal to at least 1% of total seating and shall be no fewer than 2. The seats shall provide at least 2'0" - 609 mm clear leg space between the front of the seat to the nearest obstruction.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA	
ASSEMBLY/PERFORMING AREAS (cont'd)						
4. Listening systems						
a. Minimum number	1190.230 (d)	A117.1 4.33.1	NP	NP	NP	Listening systems shall be provided in accessible assembly performing areas to assist (a reasonable number but) no fewer than two persons with severe hearing loss (provided only in assembly/performing areas with audio amplification systems.)
b. Location	1190.230 (d)(1)	ND A117.1 4.33.6	NP	NP	NP	If the listening system serves individual seats, locate such seats within 50'0" - 15 m of the stage or arena. Such locations shall provide a complete view of the stage or arena.
c. Acceptable systems	1190.230 (d)(2)	ND A117.1 4.37.7	NP	NP	NP	Acceptable types of listening systems include, but are not limited to, audio loops and radio frequency systems.
B. Performing Areas						
1. Accessible interior	1190.230 (c)	ND A117.1 4.33.5	NP	NP	2-611 (a)(2) (1)(a) (3)	Accessible performing and/or participation areas shall have accessible interior routes to performing areas including but not limited to stages, arena floors, dressing rooms, locker rooms, and other rooms and spaces required for use of the assembly performing and/or participation areas. (If areas are less than 2'0" - 609.6 mm above or below adjacent accessible areas, access may be accomplished by means of temporary ramp not exceeding the slope of 1:12.)
2. Alterations exception	1190.230 (c)(1)	NP	NP	NP	2-611 (a)(2) (2)(b) (c)(d)	In alteration work where it is structurally impractical to alter all performing participation areas to be on an accessible route, at least one of each type shall be made accessible. (Need not be accessible when the enforcing agency determines that compliance would create a hardship.)

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ASSEMBLY/PERFORMING AREAS (cont'd) C. Dining Areas						
1. Seating	NP	NP	NP	NP	2-611 (c)(2) (3)	Each dining, banquet, and bar area shall have one accessible seating space for each 20 seats, with at least one accessible space per each functional area and shall be integrated with general seating to allow reasonable selection and to avoid having one area specifically highlighted as the disabled area. The ratio of seating design for handicapped use is based upon the total number of seats provided. However, in existing buildings, when the enforcing agency determines that compliance would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.
2. Accessible Interiors	1190.230 (c)	ND A117.1 4.33.5	NP	NP	2-611 (a)(2) (1)(a) (3)	Accessible performing and/or participation areas shall have accessible interior routes to areas including but not limited to club rooms, athletic rooms and facilities, playing fields, swimming pools and deck areas, bowling lanes, gymnasium floors, ball courts, dining areas, bar facilities, religious sanctuaries. (If areas are less than 2'0" - 609.6 mm above or below adjacent accessible areas, access may be accomplished by means of temporary ramps not exceeding the slope of 1:12).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
III. CONTROLS AND OPERATING MECHANISMS						
A. Minimum Number	1190.31 (m)(n) .100 (v)(4) .170 (a)	A117.1 4.27	5.9.1 5.10	NP	2-1711 (1)(1) (B)(2)	All controls and operating mechanisms and hardware such as, but not limited to, switches and controls for lights, power, heat, ventilation, windows, draperies, drinking fountains, vending machines, thermostats, fire pull switches, doors, hardware, appliances, towel dispensers, sanitary napkin waste recepticals and dispensers, coin slots and all other similar operating mechanisms, dispensing mechanisms, operating hardware disposal facilities if provided shall be accessible (only controls and operating mechanisms intended for public use) (all within accessible routes or as part of accessible elements) (all frequent and essential operating mechanisms) (and has no provisions for elevator intercommunication system compartment door hardware).
B. Locations						
1. Forward reach	1190.170 (b) .40 (c) .150 (e)(6)	ND A117.1 4.27.3 4.2.5	5.10.3 5.6.8	17.11 (c)(3)	2-1722 (a)(b) (c)(d) 3-210-25 (e) 3-380-8 (c)	Accessible controls and operating mechanisms shall be located between 4'0" - 1,220 mm and 1'3" - (1'0" - 305 mm) high if designed to be reached from the forward reach position providing there are no objects in the clear space to obstruct the reach. (No provisions for minimum height and requires bathroom controls and fixtures to be mounted for forward reach only and not the side reach.) (No provision for obstructing objects in clear reach space.) (no provision for approach or reach direction) (provides for electrical outlets to be located at 1'0" - 305 mm above the floor except baseboard electrical outlets used in relocatable partitions, window, wall or floor outlets which are not subject to the minimum height requirements) (only has provisions for towel dispensers and disposal fixtures which are to be mounted within 3'4" - 1,017 mm off the floor.) Provides for operating mechanism or switches to be located between 3'0" - 915 mm and 4'0" - 1,220 mm above the floor.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
CONTROLS AND OPERATING MECHANISMS (cont'd)						
2. Side reach	1190.170 (b) .40 (c)	ND A117.1 4.27.3 4.2.5 4.2.6	5.10.3	NP	ND 2-1722 (a)(b) (c)(d)	Accessible controls and operating mechanisms shall be located between 4'6" and 9" - 1,370 and 230 mm high if designed to be reached from the side or parallel reach position providing there are no objects protruding into the clear space to obstruct the reach. (no provision for minimum height or obstructing objects in clear reach space).
C. Reach limitations						
1. Front reach	1190.170 (b) .40 (d)(1)	ND A117.1 4.27.3 4.2.5	NP	NP	ND 2-1722 (a)(b) (c)(d)	If objects protrude beyond accessible controls and operating mechanisms into the clear reach space for the forward approach or reach position, the objects shall be no higher than 2'3" - 685 mm and shall protrude no more than 2'1" - 635 mm.
a. Large protrusion front reach	1190.170 (b) .40 (d)(1)	ND A117.1 4.27.3 4.2.5	NP	NP	ND 2-1722 (a)(b) (c)(d)	If objects protrude beyond accessible controls and operating mechanisms into the clear reach space for the forward approach or reach position between 2'1" - 635 mm and 1'8" - 510 mm the controls and operating mechanism shall be located above the object and no higher than 3'8" - 1,120 mm.
b. Small protrusion front reach	1190.170 (b) .40 (d)(1)	ND A117.1 4.27.3 4.2.5	NP	NP	ND 2-1722 (a)(b) (c)(d)	If objects protrude beyond accessible controls and operating mechanisms into the clear reach space for the forward approach or reach position less than 1'8" - 510 mm, the control and operating mechanisms shall be located above the object and no higher than 4'0" - 1,220 mm.
2. Side reach	1190.170 (b) .40 (d)(2)	ND A117.1 4.27.3 4.2.6	NP	NP	ND 2-1722 (a)(b) (c)(d)	If objects protrude beyond accessible controls and operating mechanisms into the clear reach space for the side or parallel reach position, the objects shall be no higher than 2'10" - 865 mm, shall protrude no more than 2'0" - 610 mm and the controls shall be located above the object and no higher than 3'10" - 1,170 mm.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ▬▬	OSA ▪▪▪	
CONTROLS AND OPERATING MECHANISMS (cont'd)						
D. Clear Floor Access						
1. Area dimensions	1190.170 .140 (c)(5)	ND 4.27.2 4.2.41	NP	NP	ND 2-1722 (a)(b) (c)(d)	Accessible controls and operating mechanisms shall adjoin a clear floor or ground area that is 2'6" - 760 mm by 4'0" - 1,220 mm or 4'0" - 1,220 mm by 2'6" - 760 mm depending on the approach direction.
2. Forward access approach	1190.170 .140 (c)(2) (5)	ND A117.1 4.27.2 4.2.41	NP	NP	ND 2-1722 (a)(b) (c)(d)	The clear floor or ground area if approached from the forward direction shall be 2'6" - 760 mm in the forward reach direction by 4'0" - 1,220 mm in the side reach direction, and the 2'6" - 760 mm measurement shall be adjacent to the control and operating mechanism; providing the control and operating mechanism is not located in an alcove that is more than 2'0" - 610 mm deep in the forward reach direction.
3. Alcove forward approach	1190.170 .140 (c)(5)	ND A117.1 4.27.2 4.2.41	NP	NP	ND 2-1722 (a)(b) (c)(d)	If the clear floor or ground area adjacent to the control mechanism is located in an alcove more than 2'0" - 610 mm deep in the forward reach direction and is designed to be approached from the forward reach direction, the width of the clear floor area in the alcove shall be at least 3'0" - 910 mm wide in the side reach direction.
4. Side access approach	1190.170 (b) .140 (c)(2)(5)	ND A117.1 4.27.2 4.2.41	NP	NP	ND 2-1722 (a)(b) (c)(d)	The clear floor or ground area if approached from the side or parallel approach direction shall be 4'0" - 1,220 mm in the side reach direction by 2'6" - 760 mm. The forward reach direction and the 4'0" - 1,220 mm measure shall be adjacent to the control and operating mechanism; providing the control or operating mechanism is not located in an alcove that is more than 1'3" - 380 mm in the side reach direction.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ▬▬	OSA ▪▪▪	
CONTROL AND OPERATING MECHANISMS (cont'd)						
5. Alcove side approach	1190.170 (b) .140 (c)(5)	ND A117.1 4.27.2 4.2.41	NP	NP	ND 2-1722 (a)(b) (c)(d)	If the clear floor or ground area adjacent to the control mechanism is located in an alcove more than 1'3" - 380 mm deep in the side reach direction and is designed to be approached from the side or parallel reach direction, then the width of the clear floor area in the alcove shall be at least 5'0" - 1,525 mm wide in the forward reach direction.
6. Adjoining access	1190.170 (b) .40 (c)(2)(5)	ND A117.1 4.27.2 4.2.41	NP	NP	ND 2-1722 (a)(b) (c)(d)	The clear floor or ground area shall adjoin or overlap an accessible route or another clear floor or ground space for at least one full unobstructed side.
7. Surface	1190.170 (b) .140 (c)(6)	ND A117.1 4.27.2 4.2.43	NP	NP	ND 2-1722 (a)(b) (c)(d)	The surface of the clear floor or ground area shall comply with ROUTES/SPACES.
E. Operable Force						
1. One-handed	1190.170 (c)	ND A117.1 4.27.4	ND 5.10.2	NP	NP	Accessible controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
2. Force poundage	1190.170 (c)	ND A117.1 4.27.4	NP	NP	NP	The force required to activate accessible controls and operating mechanisms shall be no greater than 5 lbs. of force - 2.2 KG (22.2N).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
CONTROL AND OPERATING MECHANISMS (cont'd)						
F. Special Equipment						
1. Accessible	1190.170 (b) .40 (d)(3)	NP	NP	NP	NP	Special equipment may require measurements different from the measurements given in this section. The measurements for the special accessible equipment should be dictated by the design of the special accessible equipment.
2. Location	1190.170 (d)	ND A117.1 4.27.3	NP	NP	NP	Specialized equipment with controls and operating mechanisms essential to the function of the equipment are exempt from the location requirements of CONTROLS and OPERATING MECHANISMS.
3. Force	1190.170 (d)	ND A117.1 4.27.3	NP	NP	NP	Specialized equipment with controls and operating mechanisms essential to the function of the equipment are exempt from force requirements to activate those controls.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
IV. DOORS						
A. Entrances						
1. Number	1190.170 (h) 120 .32 (a)	ND A117.1 4.14.1	5.2.1	3302	2-3301 (m) 2-611 (a)(3) (4)	At least one entrance (main entrances) (primary entrances) to a building and or accessible elements shall provide accessible doors and provide access to an accessible route (if more than one entrance is provided, at least one additional door is required) to transportation facilities, passenger loading zones, parking facilities, taxi stands, public streets and sidewalks, accessible interiors, vertical access elevators if available, and other accessible buildings, facilities, elements and spaces.
2. Building exposure	1190.170 (h)	NP	NP	NP	NP	When a building or facility has entrances on more than one exposure, then at least one entrance per exposure shall provide access to an accessible route, unless site conditions preclude accessibility.
3. Service entrance	1190.170 (b)	ND A117.1 4.14.2	NP	NP	NP	A service entrance is not to be used as the only accessible entrance unless it is the only entrance to the building or facility.
4. Vertical access	1190.50 (g) (3) (4)	ND A117.1 4.3.8	ND 4.2.1	ND 3304 (f)	NP	Stairs shall not be the sole means of vertical access to an entrance or exit.
5. Restricted use	NP	NP	NP	NP	2-3301 (m)(3)	Cyclog cycles of partial or restricted use of a building or facility, the entrances used for primary access shall be accessible to and usable by physically handicapped persons.
6. Mats	NP	NP	NP	NP	2-3301 (m)(2)	Doormats shall be recessed or adequately anchored.

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Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (cont'd)						
7. Hardship exception	NP	NP	NP	NP	2-3301 (m)(1)	In existing buildings where enforcing agency determines that compliance would create an unreasonable hardship, an exception shall be granted when equivalent facilitations are provided.
B. Number						
1. Minimum	1190.31 (1)	ND A117.1 4.3.1	NP	NP	ND 2-3301 (m)	At each accessible entrance to a building facility or accessible space, at least one door or gate shall be accessible.
2. Accessibility	1190.31 (1)(2,4) 1190.130 (a)(3)	ND A117.1 4.13.3	ND 5.3.1	NP	2-611 (a)(3) (4)	All doors and gates that are an element of an accessible space, accessible facility elements, or along accessible routes shall be accessible (This includes both sides of elements like ticket booths and concession stands).
3. Revolving	1190.130 (a)(3)	ND A117.1	ND	NP	ND 2-3303 (e)(2)	Revolving doors or turnstiles are not accessible doors and shall not be the sole means of access on an accessible route.
4. Turnstiles	1190.130 (a)(3)	NP	5.3.2	NP	2-3303 (n)	An accessible door shall be provided immediately adjacent to the turnstile or revolving door (within a distance not to exceed 30'0 - 9,150 mm) (within 20'0 - 6,100 mm, preferably adjacent).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (cont'd)						
5. Alternate	NP	NP	NP	NP	2-3303 (n) 2-716 (c)(5) (c)	The alternate passageway to the turnstile shall be maintained in an unlocked condition during business hours and the door or gate shall not activate a push-only audible alarm system and shall open in the direction of travel.
C. Width						
1. Minimum	1190.170 (b)	ND A117.1 4.13.5	5.3.4	3303 (e) 1711(b)	2-1213 (a)(2) 2-3303 (e)(1) (2)(3)	Accessible doors (and required exit doors) shall provide a 2'8" - 815 mm minimum clear width, as measured with the door open 90 degrees, between the face of the door and the latch side stop (only mentions 3'0" - 915 mm entrances and exits) (does not mention method of measurement) (type 2 and type 3 doors are allowed to have a 2'6" - 763 mm wide opening).
2. Length exception	1190.130 (b)	ND A117.1 4.13.5	NP	NP	NP	Openings deeper than 2'0" - 610 mm shall be a minimum of 3'0" - 915 mm wide.
3. Double leaf	1190.130 (a)(2)	ND A117.1 4.13.4	ND 5.3.3	NP	ND 2-3303 (e)(3)	When double-leaf doorways are provided, at least one leaf - the active leaf - shall have clear width.
4. Automatic	1190.130 (a)(2)	NP	NP	NP	ND 2-3303 (e)(3)	Double-leaf, automatic doors shall provide the minimum clear width, if both doors are automatic.
5. Full passage	1190.130 (b)(1)	NP	NP	NP	NP	If a space and the elements within that space do not require full passage into the space, the opening may be a minimum of 1'8" - 510 mm.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (cont'd)						
6. Pedestrian control	NP	NP	NP	NP	2-3303 (n) 2-710 (a)(3) (A)(5) (h)	Where pedestrian controls, posts or rails or shopping cart barriers located at entrances or exits are utilized, they shall be provided 2'8" - 813 mm of clear passing.
7. Exits	NP	NP	NP	NP	2-3303 (c)(1) (g)(1) (2)	All exit doors shall be operable from the inside without the use of a key or any special knowledge or effort unless there is a sign visible on or adjacent to the door stating "This Door To Remain Unlocked During Business Hours". The signs shall have letters not less than 7"-2.5 mm high. Revolving, sliding, and overhead doors shall not be used as required exits. Sliding doors may be used when serving occupant load of 10 or less or when power operated.
D. Height	NP	NP	NP	3303 (e)	NP	The height of doors shall not be less than 6'8" - 2033 mm and shall be capable of opening at least 90 degrees.
E. Maneuvering Space						
1. Door swing and approach	1190.130 (c)	ND A117.1 4.13.6	5.3.5	3306 (d)	2-3325 (e) 2-710 (a)(3)	Accessible non-automatic or non-power assisted doors shall provide clear level maneuvering ground or floor space on each side of the door depending on door swing direction and approach direction. (no provision for approach direction)

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Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (cont'd)						
1. Door swing and approach (cont'd)					(A)(5) (d) 2-1213 (d)(1) (A)	(provides for maneuvering space only at pedestrian ramps and stairs).
2. Front approach out swing	1190.130 (c)(1)	A117.1 4.13.6	5.3.5	3306(d)	2-3325 (e) 2-710 (a)(3) (A)(5) (d) 2-1213 (d)(1) (A)	At doors allowing front approach only with the door swinging out toward the direction of approach, the maneuvering space shall be the width of the door plus 1'6" - 455 mm (2'0" - 610 mm) on the latch side of the door (5'0" - 1,525 mm which includes the 1'6" or the latch side as a part of the dimension) by 5'0" - 1,525 mm deep in the direction of approach, but a 2'0" - 610 mm is recommended (does not recommend the 2'0" - 610 mm) (doors in any position shall not reduce the minimum dimension of the landings to less than 3'6" - 1,068 mm). (Regardless of approach direction.)
3. Front approach in swing	1190.130 (c)(1)	ND A117.1	ND 5.3.5	NP	NP	At doors allowing front approach only with the door swinging away from the direction of approach, the maneuvering space shall be the width of the door plus 1'0" - 305 mm on the latch side of the door by 4'0" - 1,220 mm in the direction of the approach (4'0" - 1,220 mm wide by 3'8" - 1,066 mm measured perpendicular to the closed door regardless of approach directions).
4. Hospital exception	1190.130 (c)(1)(i)	ND A117.1 4.13.6	ND 5.3.5	NP	NP	Exception - Front approach entry door to acute care hospital patient bedrooms shall be exempt from the 1'6" - 455 mm latch side clearance.
5. Side approach latch-side out-swing	1190.130 (c)(3)	ND A117.1 4.13.6	5.3.5	NP	2-710 (9)(3) (A)(5) (d)	On doors allowing latch side approach only with the door swing out into the approach, the maneuvering space shall be the width of the door plus 2'0" - 610 mm on the latch side by 4'0" - 1,220 mm minimum deep perpendicular to the approach direction away from the door (same as front approach).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (cont'd)						
6. Side approach latch-side in-swing	1190.130 (c)(3)	ND A117.1 4.13.6	5.3.5	NP	2-710 (a)(3) (A)(5) (d)	On doors allowing latch side approach only with the door swinging away from the approach, the maneuvering space shall be the width of the door plus 2'0" - 610 mm on the latch side by 3'6" - 1,065 mm deep, perpendicular to approach direction away from the door (same as front approach).
7. Side approach hinge-side out-swing	1190.130 (c)(2)	ND A117.1 4.13.6	5.3.5	NP	2-710 (a)(3) (A)(5) (d)	On doors allowing hinge side approach only with the door swinging out in the approach, the maneuvering space shall be the width of the door plus 3'0" - 915 mm on the latch side by 5'0" - 1,525 mm minimum deep, perpendicular to the approach direction away from the door (same as front approach).
8. Side approach hinge-side in-swing	1190.130 (c)(2)	ND A117.1 4.13.6	5.3.5	NP	2-710 (a)(3) (A)(5) (d)	On doors allowing hinge side approach only with the door swinging in away from the approach, the maneuvering space shall be at least 4'6" - 1,370 mm deep in the direction of the approach starting at the latch, by at least 3'6" - 1,065 mm wide perpendicular to the approach direction away from the door. (Same as front approach.)
9. Sliding door	1190.130 (c)(1)	NP	NP	NP	NP	On sliding doors, the maneuvering space shall be the width of the door by 5'0" - 1,525 mm minimum.
10. Folding door	1190.130 (c)(1)	NP	NP	NP	NP	On folding doors, the maneuvering space shall be the width of the door by 5'0" - 1,525 mm minimum.
11. In series	1190.130 (d)	ND A117.1 4.13.7	5.3.6	NP	NP	Between any two hinged or pivoted doors in series, the maneuvering space shall provide a minimum of 4'0" - 1,220 mm plus the width of any door swinging into the space. Opposing doors shall not swing towards each other into the intervening space (no provision for door swing directions).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (cont'd)						
12. Right angles	NP	NP	5.3.6	NP	NP	The minimum space between doors in a series at right angles to each other shall be 6'6" - 1,983 mm in the door swing direction by 5'0" - 1,525 mm with a 1'6" - 458 mm maneuvering space clearance between the strike edge of the doors and the walls. If both doors swing into the space, the area shall be 6'6" by 6'6" - 1,983 mm by 1,983 mm.
13. Privacy walls	NP	NP	5.6.3	NP	NP	Where privacy screens or walls are provided and the door swings in toward the privacy wall, the minimum clear floor area shall be 5'0" - 1,525 mm in the direction of the door swing by the length of the privacy wall plus a 3'6" - 1,068 mm open clearance leading to the facilities, between the wall and the privacy wall. If the door swings out and is opposite the privacy wall, the minimum clear floor area shall be 4'6" - 1,373 mm by the length of the privacy wall plus a 3'6" - 1,068 mm open clearance leading to the facilities, between the wall and the privacy wall. The privacy wall shall not be any shorter than the width of the door.
14. Clear floor space	1190.130 (3)(4)	A117.1 4.13.6	ND 5.3.5	NP	ND 2-3303	The floor surface area within the required maneuvering space shall be clear level and shall have no slope greater 1:48 (1:50) 1/4 inch per foot.
F. Opening Force						
1. Exterior	NP reserved 1190.130 (h) (2) (ii)	A117.1 4.13.11 (2)(a)	NP	NP	2-3303 (n)	The maximum pulling or pushing opening force of exterior hinged doors or gates shall be 8.5 lbs. - 37.8 N.
2. Interior hinged	1190.130 (h)(2) (ii)	ND A117.1 4.13.11 (2)(b)	NP	NP	ND 2-3303 (n) 2-710 (c)(5) (c)	The maximum pulling or pushing opening force of interior hinged doors or gates shall be 5 lbs. - 2.3 Kg (22.2 N)

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (cont'd)						
3. Sliding/folding	1190.130 (h)(2) (iii)	ND A117.1 4.13.11	NP	NP	NP	The maximum pulling or pushing opening force of sliding or folding doors shall be 5 lbs. - 2.3 Kg (22.2 N).
4. Fire	1190.130 (h)(2) (iv)	ND A117.1 4.13.11	NP	NP	2-3303 (1)(2)	The maximum pulling or pushing opening force of fire doors shall be determined by agency having responsibility for the safety of the facility (15 lbs. - 6.8 Kg).
5. Latch bolts	1190.130 (h)(2)(v)	ND A117.1 4.13.11	NP	NP	NP	These forces do not apply to forces required to retract or disengage latch bolts or other door latching devices.
6. Testing method	NP	A117.1 4.13.11	NP	NP	2-3303 (1)(2)	The forces shall be applied perpendicular to the door at the door opener or 2'6" - 760 mm from the hinged side whichever is farther from the hinge. The force shall be applied gradually so that the applied force does not exceed the resistance of the door. The force shall be applied parallel to sliding and folding doors at the door pull or latch.
7. High rise exception	NP	NP	NP	NP	NPTD	Exception - In high-rise buildings, air pressure differentials may require a modification of this specification in order to meet the functional intent.
8. Closure force sweep time	1190.130 (h)(1)	A117.1 4.13.10	NP	NP	NP	Door closers, if provided, shall have a sweep period adjusted so that from a position of 70 degrees open it will take the door a minimum of 5 seconds (3 seconds) to reach a point 3" - 75 mm from the door jamb, measured from the leading edge of the door.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (cont'd)						
G. Hardware						
1. Operation force	1190.130 (f)	ND A117.1 4.13.9	ND 5.3.8	NP	ND 2-3303 (c)(3)	Accessible doors shall provide handles, pulls, latches, locks, and other operating hardware that comply with control and operating mechanisms. Acceptable designs include, but are not limited to, lever-operated hardware, push-style hardware, and U-shaped handles.
2. Dwelling units	NP	A117.1 4.13.9	NP	NP	NP	In dwelling units, only doors at accessible entrances to the unit itself shall comply with the hardware requirements.
3. Height	1190.130 (f)	A117.1 4.27.3 and 4.2.5 4.2.6	ND	NP	2-3303 (c)(3)	Operating hardware shall be mounted no higher than 4'0" - 1,220 mm (4'6" - 1,373 mm) (between 3'0" and 3'6" - 915 and 1,068 mm maximum above finish floor.
4. Dead bolt exception	1190.130 (f)(1)	NP	NP	NP	2-3303 (c)(2)	Exception - Mortise and surface mounted bolts used to secure the inactive leaf of a double-leaf door without center mullion may be mounted at any height. (Manually operated edge or surface mounted dead bolts are prohibited when exit doors are used in pairs and automatic bolts are used. The door leaf having the bolts shall have no door knob or surface-mounted hardware. The unlatching of any leaf shall not require more than one operation.)
5. Sliding door	1190.130 (f)	ND A117.1 4.13.9	ND 5.3.8	NP	NP	Operating hardware shall be exposed and usable from both sides when sliding doors are fully open.
6. Bottom surface	NP	A117.1	5.3.9	NP	2-3303 (m)	The bottom (16" - 407 mm) (10" - 254 mm) (9" - 229 mm) of all doors except automatic and sliding shall have a smooth uninterrupted surface (all doors including automatic.)

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (cont'd)						
7. Push panel	NP	A117.1 A14.9	NP	NP	2-3303 (m) 2-710 (a)(3) (4) (5)(f)	Where narrow frame doors are used, a (16" - 407 mm) (10" - 254 mm) high smooth panel shall be installed on the push side of the door which will allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition. The panel should cover at least the door width minus 2" - 51 mm on each side) and should go to at least 3" - 76.2 mm of the floor or ground).
8. Locked doors and hotels	NP	NP	NP	NP	2-3303 (c)(3) (c)(1) (1) (2)(c) (2)	Locked exit doors shall comply with the controls and operating mechanism requirements to access direction. Doors to individual hotel or motel units shall comply with the control and operating mechanism requirements except when key-activated from the corridor side or unit door. Large bow keys (2" full bow or 1 1/4" half bow) shall be provided in lieu of lever-type hardware on the corridor side. Dead-lock activation on room side of corridor locks in hotels or motels shall have large thumb turns in an easily reached location. Exit door locking devices must be of a type that will be readily distinguishable as locked. Exit doors from buildings or rooms having an occupant load of 10 or less may be provided with a night latch, dead bolt or security chain providing such devices may be opened from the inside without the use of a key, special knowledge or effort and mounted at a height not to exceed 4'0" - 1,220 mm above the finished floor.
H. Thresholds						
1. Maximum height	1190.130 (e)	ND A117.1 4.13.8	ND 5.3.7	NP	NP	Raised thresholds, if provided, shall not exceed 1/2" - 13 mm maximum height above the floor surface.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (con't)						
2. Exterior sliding	1190.130 (e)	ND A117.1 4.13.8	ND 5.3.7	NP	NP	Raised exterior sliding door thresholds, if provided, shall not exceed 3/4" - 19 mm maximum height.
3. Beveled	1190.130 (e)	ND A117.1 4.13.8	ND 5.3.10	NP	NP	Raised thresholds, if provided, shall be beveled with a slope not to exceed 1:2 (1:1).
4. 1/4" Exception	1190.130	ND	NP	NP	NP	Exception--Bevel not required for thresholds less than 1/4" - 6 mm.
I. Automatic						
1. References ANSI 156.10 BHMA 1601	1190.130 (1) (3)	ND A117.1 4.13.2	5.3.10	NP	NP	If an automatic door is used, then it shall comply with American National Standard for Power Operated Doors, ANSI A156.10. Slow opening low-powered, automatic doors shall be considered a type of custom design installation as described in paragraph 1.1.1 of ANSI A156.10 (and the Building Hardware Manufacturers Association-BHMA 1601).
2. Opening time	1190.130 (1)(1)	A117.1 4.13.2	NP	NP	NP	If automatic pedestrian doors are provided, they shall not open to back check in less than 5 seconds (3 seconds).
3. Stopping force	1190.130 (1)(2)	A117.1 4.13.2	NP	NP	NP	If automatic doors are provided, they shall not require more than 15 lbs. - 6.8 Kg (66.6 N) to stop door movement.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DOORS (con't)						
4. Opening force	1190.130 (h)(2)(v)	ND A117.1 4.13.12	NP	NP	ND 2-3302 (1)(2)	If automatic or power-assisted doors are provided, they shall comply with the maximum pulling or pushing opening force.
J. Unreasonable Hardship	NP	NP	NP	NP	2-1213 (a)	When the enforcing agency determines that compliance would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ═══	OSA ▪▪▪	
V. DRINKING FOUNTAINS						
A. Number						
1. 50% provision	1190.31 (1)	A117.1 4.15.1	5.7.1	1712	NP	If drinking fountains or water coolers are provided, (all) approximately 50% of those provided on each floor shall be of accessible design and shall be dispersed throughout the floor. If only one is provided on any floor, it shall have two levels and the lower level shall be of accessible design (required a reasonable number but (always at least one)).
B. Location						
1. Encroachment	NP	NP	NP	NP	2-1712 (a)	Where drinking fountains are provided, they shall be located completely within alcoves, or otherwise positioned so as not to encroach into pedestrian ways.
2. Unreasonable hardship exception	NP	NP	NP	NP	2-1712 (a)	Where the enforcing authorities determine that it would create an unreasonable hardship to locate the drinking fountain in an alcove, the drinking fountains shall project into the path of travel.
C. Clearance						
1. Floor space	1190.160 (b)	ND A117.1 4.15.5 4.2.4	ND	1712	2-1712 (a)	Accessible drinking fountains or water coolers shall have a clear floor ground space that is 2'6" - 760 mm (2'8" - 813 mm) by 5'0" - 1,220 mm adjacent to the fountain.
2. Minimum width	1190.50 (c)	ND A117.1 4.4.1	ND 5.7.4 and 5.13.2	ND 3304 (d)	NP	Drinking fountains shall not reduce the minimum clear width of accessible path of travel.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	QSA	
DRINKING FOUNTAINS (cont'd)						
3. Cantilevered knee space	1190.160 (b)(1)	A117.1 4.15.5	NP	NP	2-1712 (a) P1507	Accessible drinking fountains or water coolers of the cantilevered type shall have a clear knee space between the bottom of the apron and the floor or ground at least 2'3" - 685 mm high, 2'6" - 760 mm (2'8" - 813 mm) and 1'5" - 430 mm (1'5" to 1'7" - 430 mm to 483 mm) (1'6" - 458 mm) deep, allowing a forward approach.
4. Freestanding space	1190.160 (b)(2)	ND A117.1 4.15.5 2	ND 5.7.4	NP	2-1712 (a) P1507 (a)	Accessible drinking fountain or water cooler of the freestanding type shall provide a clear space that is 2'6" by 4'0" - 760 mm by 1,120 mm adjacent to the fountain, (a side approach drinking fountain is not acceptable).
D. Spout						
1. Location	1190.160 (c)(1)	ND A117.1 4.15.3	5.7.2	1712	2-1712 (a) P1507 (b)	Accessible drinking fountain and water cooler spouts shall be mounted no higher than 3'0" - 915 mm (2'6" to 3'0" - 873 mm - 915 mm) (2'9" - 838 mm).
2. Front mounted	1190.160 (c) (2)	ND A117.1 4.15.3	NP	NP	2-1712 (a) P1507 (b)	Accessible drinking fountain and water cooler spouts shall be mounted at the front of the unit (located within 6" - 153 mm of the front) and shall direct the water flow trajectory parallel or nearly parallel to the front of the unit.
3. Water flow	1190.160 (c)(3)	ND A117.1 4.15.3	NP	NP	NP	Accessible drinking fountain and water cooler spouts shall direct the water flow at least 4" - 100 mm above the unit basin to facilitate cup or glass insertion.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA	
DRINKING FOUNTAINS (cont'd)						
E. Wing Walls						
1. Mounting height	NP	NP	NP	NP	2-1712 (c)	If alcoves are not provided the wing wall shall project out from the supporting wall at least as far as the drinking fountains to within 6" - 153 mm of the surface of the path of travel.
2. Clear width	1190.160 (b)(1)	ND A117.1 4.15.5	NP	ND 1712	2-1712 (c)	There shall be a minimum of 2'6" - 763 mm (2'8" - 813 mm) clear width between the wing walls.
F. Controls						
1. Mounting	1190.160 (d)	ND A117.1 4.15.4 4.27.4	5.7.3 5.10	ND 1712	2-1712 (a) P1507 (b)	Accessible drinking fountain and water cooler controls shall be front mounted or side mounted near the front edge (only requires the controls to be mounted no higher than 4'0" - 1,220 mm above the floor) (within 6" - 153 mm of front)
2. Design	1190.160 (d) .170(c)	ND A117.1 4.15.4 4.27.4	5.7.3 5.10	ND	P1507	Accessible drinking fountains and water coolers shall comply with CONTROLS and OPERATING mechanisms (regular types) (allows hand and foot operated) (allows hand-operated lever or push bar type designs) (easily operated by handicapped persons such as hand-operated lever type.)

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
VI. ELEVATORS/LIFTS						
A. Elevators						
1. ANSI (American National Standard Safety Code for Elevators)	1190.100 (a)(1)	A117.1 4.10.1	5.9.1	NP	NP	Accessible passenger elevator information can be found in (shall comply with) the American National Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks, ANSI A17.1-1978.
2. NEII (National Elevator Industry, Inc.)	1190.100 (a)(1)	ND A117.1 4.10.1	5.9.1	NP	NP	Accessible passenger elevator information can be found in (shall comply with) National Elevator Industry, Inc., (NEII).
3. Cars	1190.100 (b)	ND A117.1	5.9.1	NP	NP	Accessible passenger elevators shall be automatic (References ANSI, A.17.1 and NEII).
a. Automatic		4.10.2				
b. Accessible	1190.31 (f)	ND A117.1 4.10.1	ND 5.9.1	ND 5103	NP	Passenger elevators if provided shall be accessible.
c. Freight	1190.100	NP	NP	NP	NP	Freight elevators shall not be considered accessible passenger elevators.
d. Minimum number	1190.31 (f)(4) (f)(2)	ND A117.1 4.3.8	ND 5.9.1	5103	ND 2-3302 (a)	One accessible passenger elevator, platform lift or pedestrian ramp shall serve each level in all multi-story buildings and facilities (no provision for lifts).
e. Serviceable levels	1190.31	NP	NP	NP	2-3302 (3)	Elevator pits, penthouse elevators, mechanical rooms, piping or equipment catwalks are not considered serviceable levels (basements used solely for service of building).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC ---	OSA ###	
ELEVATOR/LIFTS (cont'd)						
f. Illumination	1190.100 (i)	ND A117.1 4.10.11	NP	NP	NP	Accessible passenger elevator cars shall be illuminated to a minimum of 5 foot candles - 53.8 lux.
g. Handrails	NP	NP	NP	NP	NPTD	Accessible passenger elevators shall be provided with at least one handrail located at 2'6" to 2'10" - 763 to 864 mm above the floor of the car and shall comply with HANDRAILS.
h. Floor surface	1190.100 (d)(2)	ND A117.1 4.10.10	5.9.1	NP	NP	Car floor surface shall comply with ROUTES/SPACES (refers to ANSI A17.1 and NEII).
4. Locations						
a. General	NP	A117.1 4.10.1	NP	NP	NPTD	Accessible passenger elevators shall be located near a major pedestrian way and provisions shall be made to assure that they remain accessible and usable at all times when the building is occupied.
b. Adjacent route	1190.3 (a) (4)	NP A117.1 4.3.2	ND 4.2.1	ND	NP	At least one accessible route shall connect an accessible building entrance to accessible elements (elevators, stairs, etc.).
5. Thresholds and sills						
a. Automatic leveling	1190.100 (b)	A117.1 4.10.2	5.9.1	NP	NPTD	Accessible passenger elevators shall be provided with a self-leveling feature that will automatically bring the car to the floor landing within a tolerance of 1/2" - 13 mm under normal loading and unloading conditions (to zero loading conditions) (refers to ANSI A17.1 and NEII).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATOR/LIFTS (cont'd)						
b. Independent leveling	1190.100 (b)	ND A117.1 4.10.2	5.9.1	NP	NP	The self-leveling feature shall be entirely automatic and independent of the operating device and shall correct for over-travel or under-travel (refers to ANSI A17.1 and NEII).
c. Continuous leveling	1190.100	NP	5.9.1	NP	NPTD	The self-leveling feature shall maintain the car approximately level irrespective of loading conditions (refers to ANSI A17.1 and NEII).
d. Illumination	1190.100 (i)	ND A117.1 4.10.11	5.9.1	NP	NP	The illuminator of accessible passenger elevator car thresholds and landing sills shall be a minimum of 5 foot candles - 53.8 lux (refers to ANSI A17.1 and NEII).
e. Clearance	1190.100 (d) (2)	ND A117.1 4.10.9	5.9.1	NP	NP	The clearance between the car platform sill and the edge of any hoistway landings sills shall be no greater than 1 1/4" - 32 mm (refers to ANSI A17.1 and NEII).
6. Clear floor space						
a. Maneuvering area	NP	A117.1 4.10.9	5.9.1	NP	NPTD	The minimum clear floor area of accessible passenger elevators shall provide space for wheelchair users to enter the car, maneuver within reach of the controls and exit from the car (refers to ANSI A17.1 and NEII) (requires area for wheelchair to turn around inside of the elevator car if the occupant load of the building exceeds 50 persons)
b. Center opening door	1190.100 (d) (1)	A117.1 4.10.9	5.9.1	NP	NP	The minimum clear floor area of accessible passenger elevators with center opening doors shall be 6'8" by 4'3" - 2,030 by 1,290 mm. If the measurement is taken between the door and the wall parallel to the door, the measurement shall be 4'6" - 1,370 mm instead of the 4'3" - 1,290 mm (has no provision for a center opening door but suggests that the minimum 5'8" - 1,730 mm dimension may have to be increased (refers to ANSI A17.1 and NEII).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATOR/LIFTS (cont'd)						
c. Occupant load	NP	NP	NP	NP	NPTD	Accessible six-passenger elevators in buildings serving an occupant load greater than 50 persons shall have a minimum clear floor area 5'8" by 4'3" - 1,730 mm by 1,290 mm or other dimensions where it can be demonstrated that a wheelchair can enter and turn around within the elevator cab.
d. High rise	NP	NP	NP	5103	2-5103 (e)(5)	Accessible passenger elevators in high rise buildings shall have a minimum clear floor area 6'8" by 4'3" - 2,030 mm by 1,290 mm which will accommodate an ambulance stretcher 6'6" by 1'10" - 1,983 mm by 559 mm in its horizontal position (any building over three stories high).
e. Alteration minimum	1190.100 (d) (1) (1)	NP	NP	NP	NP	Where existing shaft or structural elements prohibit strict compliance in alteration work, the clear floor area dimensions may be reduced by the minimum amount necessary. But in no case shall the clear area be less than 4'0" by 4'0" - 1,220 mm by 1,220 mm.
f. Side-opening door	1190.100 (d) (1)	A117.1 4.10.9	5.9.1	5103	NPTD	The minimum clear floor area of accessible passenger elevators with side opening doors shall be 5'8" by 4'3" - 1,730 mm by 1,290 mm. If the measurement is taken between the door and the wall parallel to the door, the measurement shall be 5'8" by 4'6" - 1,730 mm by 1,370 mm (4'6" - 1,370 mm by 4'3" or 4'6" - 1,290 or 1,370 mm if the elevator capacity is less than 2,000 lbs. - 907.18 Kg) (refers to ANSI A17.1 and NEII) (6'8" by 4'3" - 2,030 mm by 1,290 mm with no statement of type of door or how to measure providing the building is more than three stories high) (4'6" by 5'6" - 1,370 mm by 1,270 mm with no statement of type of door and one of the measurements taken between the door and wall parallel to the door, if the occupant load of the building is under 50 persons).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA ***	
ELEVATOR/LIFTS (cont'd)						
7. Control panels						
a. Center door location	1190.100 (d) (3) (vi)	ND A117.1 4.10.12 (4)	5.9.1	NP	NP	Accessible passenger elevator car control panels shall be located on a front wall if cars have center opening doors (refers to ANSI A17.1 and NEII).
b. Side door location	1190.100 (d) (3) (vi)	ND A117.1 4.10.12 (4)	5.9.1	NP	NP	Accessible passenger elevator car control panels shall be located on a front or side wall next to the door if cars have side opening doors (refers to ANSI A17.1 and NEII).
c. Accessible	1190.100 (d)(3)	NP	NP	NP	NP	Accessible passenger elevator car control panels shall be readily accessible from a wheelchair.
d. Mountings	1190.100 (d) (3) (iii)	ND A117.1 4.10.12 (3)	5.9.1	5130	NPTD	Accessible passenger elevator car control panels shall be located to where the highest floor button or control is mounted above the floor at a maximum of 4'0" - 1,220 mm (4'6" - 1,370 mm) (refers to ANSI A17.1 and NEII).
e. Cost exception	1190.100 (d) (3) (iii)	NP	NP	NP	NP	If there is a substantial increase in cost as a result of the 4'0" - 1,220 mm location of control panels requirement, the highest floor button may be mounted at a maximum of 4'6" - 1,370 mm.
f. Minimum mounting height	1190.100 (d) (3) (iii)	ND A117.1 4.10.12 (3)	5.9.1	NP	NP	Accessible passenger elevator car control panels shall be located to where the lowest floor button or control is mounted above the floor at a minimum of 2'11" - 890 mm. (Refers to ANSI A17.1 and NEII).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATOR/LIFTS (cont'd)						
g. Illumination	1190.100 (1)	ND A117.1 4.10.11	5.9.1	NP	NP	Accessible passenger elevator car control panels shall be illuminated to a minimum of 5 foot candles 53.8 lux. (Refers to ANSI A17.1 and NEII).
8. Control panel buttons						
a. Button size	1190.100 (d)	A117.1 4.10.12	5.9.1	NP	NPTD	Accessible passenger elevator car controls or floor buttons, exclusive of border, shall have a minimum dimension of 3/4" - 19 mm, (no mention of border). (Refers to ANSI A17.1 and NEII).
b. Raised-flush & recessed	1190.100 (d) (3) (i)	A117.1 4.10.12 (i)	5.9.1	NP	NPTD	Accessible passenger elevator car controls or floor buttons shall be raised or flush with the operating panel (also may be recessed) (requires all buttons to be raised). (Refers to ANSI A17.1 and NEII).
c. Visual signal on	1190.100 (d)(3) (ii)	ND A117.1 4.10.12	5.9.1	NP	NP	Accessible passenger elevator car control floor buttons shall provide a visual signal indicating when each call has been registered and answered. (Refers to ANSI A17.1 and NEII).
d. Visual signal off	NP	A117.1 4.10.12 (2)	5.9.1	NP	NP	Accessible passenger elevator car control floor buttons shall extinguish the visual signal indicator when each call has been answered. (Refers to ANSI 17.1 and NEII).
e. Heat activated	NP	NP	NP	NP	NPTD	Accessible passenger elevator car control or floor buttons shall not be heat activated.
f. Main entry	1190.100 (d) (3) (v)	NP	NP	NP	NP	Accessible passenger elevator shall locate the call button for the main entry floor in the leftmost column.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATOR/LIFTS (cont'd)						
g. Emergency	1190.100 (d) (3) (iv)	ND A117.1 4.10.12 (3)	5.9.1	NP	NP	Accessible passenger elevator shall locate emergency controls or buttons including emergency alarm and emergency stop in a group at the bottom of the control panel and shall have their centerlines no lower than 2'11" - 890 mm above the floor (refers to ANSI A17.1 and NEII).
9. Emergency intercommunications						
a. Where provided	NP	A117.1 4.10.14	5.9.1	NP	2-5103 (a)(2) (b)(2)	Emergency intercommunication, if provided (shall be provided) in accessible passenger elevators (between the elevator and a point outside the hoistway) (shall comply with ANSI A17.1, 1978 and A17.1a 1979 and NEII).
b. Location	1190.100 (v) (1)	ND A117.1 4.10.14	5.9.1	5103 (1)	NP	Emergency intercommunication, if provided in accessible passenger elevators, shall locate the highest operable part of the system above the floor, no higher than 4'0" - 1,220 mm (4'6" - 1,370 mm) (refers to ANSI A17.1, 1978 and NEII).
c. Handset cord length	1190.100 (v) (3)	ND A117.1 4.10.14	5.9.1	NP	NP	If the emergency intercommunication system employs a handset, it shall be provided with a cord from the handset to the panel at least 2'5" - 1,735 mm long (refers to ANSI A17.1 and NEII).
d. Momentary contact button	1190.100 (v)(5)	NP	5.9.1	NP	NP	Emergency intercommunication, if provided, in accessible passenger elevators, shall provide a momentary contact button to allow hearing-impaired individuals to summon assistance. (Refers to ANSI A17.1 and NEII.)
10. In-car position indicator						
a. Audible	1190.100 (n) (1) (1)	ND A117.1 4.10.13	5.9.1	NP	NP	Accessible passenger elevators shall provide an audible car position indicator/signal as its car passes or stops at each landing (refers to ANSI A17.1, 1978 and NEII).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATOR/LIFTS (cont'd)						
b. Sound levels	1190.100 (h) (1) (i)(ii)	ND A117.1 4.10.13	5.9.1	NP	NP	The audible car position indicator/signals shall exceed the ambient noise level by at least 20 decibels with a frequency below 1,500 Hz or provide an automatic verbal announcement of the floor number at which a car stops or passes (refers to ANSI A17.1, 1978 and NEII).
c. Special trip button	NP	A117.1 4.10.13	NP	NP	NP	A special button may be provided that would activate the audible signal within the given elevators only for the desired trips, rather than maintaining the audible signal in constant operation.
d. Visual indicator	1190.100	A117.1 4.10.13	5.9.1	NP	NP	Accessible passenger elevators shall provide visual indicators located above the car operators panel or over the car door (to show the position of the elevator in the hoistway) (refers to ANSI A17.1, 1978 and NEII).
e. Visual display	1190.100 (h) (2) (ii)	A117.1 4.10.13	5.9.1	NP	NP	Visual indicators shall visually display (illuminate) the numbers as the car passes or stops at a (corresponding) landing (refers to ANSI A17.1, 1978 and NEII).
f. Character height	1190.100 (h) (2) (iii)	ND A117.1 4.10.13	5.9.1	NP	NP	Visual indicators shall have characters that are a minimum of 1/2" - 13 mm high (refers to ANSI A17.1, 1978 and NEII).
g. Signage	1190.100 (h)(2) (iii)	NP	NP	NP	NP	Visual indicator characters shall comply with SIGNAGE.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATORS/LIFTS (cont'd)						
11. Elevator doors						
a. Automatic	1190.100 (c)	ND A117.1 4.10.9 4.10.6	5.9.1	NP	NP	Accessible passenger elevator doors shall open and close automatically (refers to ANSI A17.1, 1978 and NE11).
b. Minimum width	1190.100 (c)	ND A117.1 4.10.9	5.9.1	5103	NPTD	Accessible passenger elevator door shall be a minimum width of (3'0" - 915 mm) (3'6" - 1,068 mm for buildings over 3 stories high) (3'6" - 1,068 mm for high rise building, 3'0" - 915 mm for a building occupant load exceeding 50 persons where it can be demonstrated that a wheelchair can enter and turn around within the elevator car, and 2'8" - 813 mm if building occupant load is less than 50 persons). (Refers to ANSI A17.1, 1978 and NE11).
c. Reopening device	1190.100 (c) (3)	ND A117.1 4.10.6	5.9.1	NP	NP	Accessible passenger elevator doors shall provide a reopening device which will function to stop and reopen the car door and the adjacent hoistway door in case the car door is obstructed while the door is closing. The reopening device shall be capable of sensing an object or person in the path of a closing door without requiring contact for activation between the height of 5" and 2'5" - 125 mm and 735 mm. The reopening device shall remain effective for a period of not less than 20 seconds. (Refers to ANSI A17.1, 1978 anJ NE11).
d. Closing time	NP	ND A117.1 4.10.6	5.9.1	NP	NP	The reopening device after an effective period of 20 seconds may close the door in accordance with the requirements of ANSI A17.1, 1978 and A17.1a, 1979. (Refers to ANSI A117.1 and NE11).
e. Safety feature	NP	A117.1 4.10.6	5.9.1	NP	NP	The reopening device in accordance with ANSI A17.1, 1978 after the door starts to close could still be stopped if a person or object exerts sufficient force at any point on the door edge (refers to ANSI A17.1, 1978 and NE11).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATOR/LISTS (cont'd)						
f. Open time	1190.100 (c) (2)	A117.1 4.10.8	5.9.1	NP	NP	Accessible passenger elevator doors shall remain fully open a minimum of 5 seconds (3 seconds) (refers to ANSI A17.1 and NEII).
g. Notification of closure time	1190.100	A117.1 4.10.7	5.9.1	NP	NP	The minimum acceptable time from notification that a car is answering a hall call until the doors of that car start to close shall be: time = distance / 1.5 ft or 445 mm which is calculated by dividing 1.5 ft or 445 mm into a distance measured from a point in the center of the elevator corridor or lobby, maximum of 5'0" - 1,525 mm, perpendicular and directly opposite of the farthest hall call button away from the elevator hoistway entrance, to the centerline of that farthest hoistway entrance. (Does not include the center of the corridor or lobby measurement). Refers to ANSI A17.1 and NEII.
h. In-car notification	NP	A117.1 4.10.7	5.9.1	NP	NP	For cars with in-car notification lanterns the time begins when the lantern is visible from the vicinity of the hall call button and an audible signal is sounded. Refers to ANSI A17.1 and NEII.
12. Lobby call buttons						
a. Mounting height	1190.100 (f) (1)	ND A117.1 4.10.3	5.9.1	5103	NP	Lobby, corridor or hall call buttons shall be mounted above the finished floor with their centerlines at 3'6" - 1,065 mm (within 5'6" - 1,370 mm above the floor). Refers to ANSI A17.1 and NEII).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATOR/LIFTS (cont'd)						
b. Minimum size	1190.100 (f) (i) (ii)	A117.1 4.10.3	5.9.1	NP	NPTD	Lobby, corridor, or hall call button shall be a minimum of 3/4" - 19 mm in diameter. (Does not require buttons to be round. The dimension refers to the smallest allowable dimension). (The dimension is exclusive of the borde[illegible] (Refers to ANSI A17.1 and NE11).
c. Raised or flush	1190.100 (f) (i) (iv)	NP	5.9.1	NP	NPTD	Lobby, corridor or hall call buttons shall be raised or flush (requires raised buttons). (Refers to ANSI A17.1 and NE11).
d. Visual signal	1190.100 (f) (i) (iii)	ND A117.1 4.10.3	5.9.1	NP	NPTD	Lobby, corridor or hall call buttons shall have visual signals indicating when a call is registered and answered (extinguished when answered). (Refers to ANSI A17.1 and NE11).
e. Up button mounting	1190.100 (f) (i) (v)	ND A117.1 4.10.3	5.9.1	NP	NP	Lobby, corridor or hall call buttons shall have the button designating "up" mounted on top. (Refers to ANSI A17.1 and NE11).
f. Protruding objects	1190.100	NP	NP	NP	NP	Objects mounted beneath call buttons shall not project into the elevator lobby, corridor or hall more than 4" - 100 mm.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATOR/LIFTS (cont'd)						
13. Hall lantern indicators						
a. Audible/Visual	1190.100	A117.1 4.10.4	5.9.1	NP	NP	Accessible passenger elevators shall provide an audible and visual signal at each hoistway entrance to indicate car arrival and its travel direction (does not require the visual signal to indicate the travel direction). (Refers to ANSI A17.1 and NE11).
b. Audible signal	1190.100 (g) (1)	ND A117.1 4.10.4	5.9.1	NP	NPTD	The audible signals shall sound once (twice) for the up direction and twice (once) for the down direction or shall communicate the words "up" or "down" (has no provision for communications "up" and "down"). (Refers to ANSI A17.1 and NE11).
c. Visible distance	1190.100 (g) (2) (iv)	ND A117.1 4.10.4 (3)	5.9.1	NP	NP	The visual signal shall be visible from the vicinity of the lobby, corridor, hall call buttons. (Refers to ANSI A17.1 and NE11).
d. Mounting height	1190.100 (g) (2) (i)	ND A117.1 4.10.4 (1)	5.9.1	NP	NP	The visual signal shall be mounted above the finished floor with through centerlines a minimum of 6'0" - 1,830 mm. (Refers to ANSI A17.1 and NE11).
e. Minimum size	1190.100 (g) (2) (ii)	A117.1 4.10.4	5.9.1	NP	NP	The visual signal shall have a minimum (the smallest) dimension of 2 1/2" - 64 mm. (Refers to ANSI A17.1 and NE11).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	QSA	
ELEVATOR/LIFTS (cont'd)						
f. Up/Down visual	1190.100 (g) (2) (iii)	NP	5.9.1	NP	NP	The visual signal shall distinguish between up and down travel direction. (Refers to ANSI A17.1 and NEII).
g. Shape preference	NP	NP	NP	NP	NPTD	The visual signals using arrow shapes are acceptable.
h. Door jamb lanterns	1190.100 (g) (3)	A117.1 4.10.4 (3)	5.9.1	NP	NPTD	In-car lanterns mounted on car door jambs are acceptable if their characters are a minimum of 2" - 50 mm high and comply with SIGNAGE (if they comply with the hall lantern regulation except mounting height). (Refers to ANSI A17.1 and NEII).
B. Accessible Platform Lifts						
1. Location						
a. Level change	1190.31 (g)	NP	NP	NP	NP	Accessible platform lifts may be used where an abrupt level or grade change would necessitate a ramp slope greater than 1:20 and if no other means of accessible vertical access is provided.
b. Alterations	NP	A117.1 11.11.1	NP	NP	2-3113	Accessible platform lifts may be used as a part of an accessible route (between levels in lieu of passenger elevators) (if no other alternative is possible).
c. Exception	NP	NP	NP	NP	2-3113	Accessible platform lifts may be used where the height differential is not excessive and where it is impractical to construct a ramp or to provide an elevator.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATOR/LIFTS (cont'd)						
2. Size						
a. Accommodations	1190.110 (b)(1)	NP	ND 5.9.2	NP	2-3113 (b)(1)	Accessible platform lifts shall accommodate an occupied wheelchair (large motorized wheelchair).
b. Clearance	1190.110 (b)(1) .40	ND A117.1 4.1.2 4.2.4	NP	NP	NP	Accessible platform lifts shall provide a clear floor space that is at least 3'0" - 910 mm in the side reach direction by 5'0" - 1,525 mm in the forward reach direction.
3. Entrance and exit						
a. Unassisted	1190.110 (b)(2) .50	ND A117.1 4.11.2 4.5	NP	NP	NP	Accessible platform lifts shall facilitate unassisted entry and exit from the lifts in accordance with the provision in accessible routes.
b. Pit or ramp	NP	NP	NP	NP	2-3113 (b)(8)	A pit shall be provided to permit the platform to stop flush with the landing level, or in lieu of a pit a ramp shall be provided which does not exceed the slope of 1:12 of horizontal run.
c. Surface	1190.110 (n)(2) .50 (1)	ND A117.1 4.11.2 4.5	NP	NP	ND 2-3113 (b)(8)	The surface of the ramp shall have a non-skid surface.
4. Leveling						
a. Platform support	NP	NP	NP	NP	2-3113 (b)(3)	The lift assembly shall be securely supported to maintain the platform in a level position and to prevent the loosening or displacement of any portion of the unit.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ELEVATOR/LIFTS (cont'd)						
b. Releveling - switches	NP	NP	NP	NP	2-3113 (b)(9)	When the lift is hydraulically operated or is of the electric hydraulic type, releveling switches shall be provided to keep the platform level with the landing at which it has been parked.
5. Controls						
a. Constant pressure design	1190.110 (b)(3) .170	ND A117.1 4.11.1 4.27	ND 5.9.2	NP	2-3113 (b)(2)	Accessible platform lifts shall have accessible controls that comply with CONTROLS and OPERATING MECHANISMS (the operating control shall be the constant pressure type designed so that it can be easily operated by a handicapped person. A push-bar control designed for use by handicapped persons and a control that provides equal usability shall be provided).
b. Call/Send	NP	NP	NP	NP	2-3113 (b)(6)	Call/Send controls shall be provided at the top and bottom landing. When the platform and lift are not fully enclosed, "call/send" controls shall be key locked or otherwise controlled as to use.
6. Safety						
a. Capacity	NP	NP	NP	NP	2-3113 (b)(1)	Accessible platform lifts shall have a rated capacity of not less than 400 lbs. (181 Kg.) and a weight safety factor of not less than 4 based upon the rated load.
b. Maximum speed	NP	NP	NP	NP	2-3113 (b)(2)	The rated speed of the platform shall not exceed 20 F/M (feet per minute) (0.1 M/S or 101 mm/s).
c. Regulations	1190.110 (b)(4)	ND A117.1 4.11.2	NP	NP	2-3113 (a)	Accessible platform lifts shall satisfy (conform with all regulations and special) safety requirements of the agency having responsibility for the safety of the facilities (shall satisfy structural designs and safeguards as allowed by the State of California, Department of Industrial Relations, Division of Occupational Safety and Health).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA ***	
ELEVATOR/LIFTS (cont'd)						
d. Locking device	NP	NP	NP	NP	2-3113 (b)(5)	The lift platform and the top landing shall be equipped with a locking device, door or gate 3'6" - 1.068 mm in height. The device, door or gate shall be equipped with both mechanical and electrical contacts which prevent operation of the platform unless they are properly closed.
e. Automatic shut-off	NP	NP	NP	NP	2-3113 (b)(7)	When the enclosure required is not provided, the underside of the lifting platform shall be equipped with a safety device which will automatically shut off the lifting device should any obstruction under the platform interface with its downward travel.
f. Enclosure	NP	NP	NP	NP	2-3113 (b)(4)	Enclosures shall be provided for the platform wheelchair supports and lift which provide a reasonable degree of safety for handicapped persons using the lift and others exposed to the lift. Provide installation with safety devices that may be required.
g. Water intrusion	NP	NP	NP	NP	2-3113 (b)(3)	All portions of the lift machinery shall be protected from the intrusion of water.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
VII. HANDRAILS/HANDGRIPS						
A. Handrails						
1. Location						
a. Ramps and stairs	1190.70 (f)(2) .80(d)	ND A117.1 4.8.5 (1)	5.1.6 5.4.4	3305 (v) 3306 (3)	ND 2-3306 (e)	Continuous handrails shall be provided at both sides of stairways (does not require handrails to be continuous for private stairways) and at both sides of any ramp run exceeding a 6" - 150 mm vertical rise or a 6'0" - 1,830 mm horizontal projection (exceeding a 1:15 slope) (where possible and shall include the landings).
b. Intermediate	NP	NP	NP	3305 (j)	NP	Accessible stairs greater than 7'4" wide shall provide not less than one intermediate handrail for each 7'4" section of width. Intermediate handrails shall be spaced approximately equal within the entire width of the stairway.
c. Less than 3'8" width	NP	NP	NP	3305 (j)(1)	NP	Stairways less than 3'8" - 1,118 mm wide may provide one handrail on the open side.
d. Individual dwelling	NP	NP	NP	3305 (j)(1)	NP	Stairways 3'8" or less - 1,118 mm, serving individual dwelling units, may provide one handrail on the open side.
e. Private	NP	NP	NP	3305 (j)	NP	Private stairways 2'6" - 763 mm in width or less may provide one handrail on the open side.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
HANDRAILS/HANDGRIPS (cont'd)						
2. Height						
a. Minimum/Maximum	1190.90 (d) .70(f)(2) .90(d)	A117.1 A4.8.5	ND 5.5.4 5.1.6	3305 (j) 3306 (e)	2-3303	Accessible stairways and pedestrian ramps shall mount handrails above the ramp or the nosing of the stairs between 2'8" to 2'10" - 815 to 865 mm (at the appropriate height) (2'6" to 2'10" - 763 to 815 mm) above the finished ramp surface.
b. Children's usage	NP	A117.1 A4.8.5	NP	NP	NPTD	Where children are the primary users of a building or facility, a second set of handrails shall (may) be provided at a height of 2'0" - 610 mm (appropriate height) above the nosing of the threads.
3. Terminations						
a. Extensions	1190.90 (c)(1) (i)(ii)	ND A117.1 4.8.5 (2) 4.9.4 (2)	5.1.6 5.4.4	3305 (j)	NPTD	Where accessible handrails terminat and if outside handrails are not continuous at top, bottom or intermediate landings, handrails shall extend 1'0" - 305 mm (6" - 153 mm) beyond the slope of the ramp or the nosing onto the landing or floor (has no provision for outside continuous handrail).
b. Bottom stair extension	1190.90 (c)(1) (ii)	NP A117.1 4.9.4 (2)	ND 5.4.4	3305 (j)	NP	Accessible stair handrails, where they terminate at the bottom landing, shall extend beyond the bottom riser at least 1'0" - 305 mm plus the width of one riser (only requires at least 6" - 152 mm and does not include the riser width). The handrail at the bottom shall continue the slope for a distance of one tread and parallel with the floor.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ═══	OSA ▪▪▪	
HANDRAILS/HANDGRIP (cont'd)						
c. Alteration exception	1190.90 (c)(1) (iii)	NP	NP	NP	NP	Full extensions of handrails shall not be required on alterations where such extensions would be hazardous or impossible due to plan configurations.
d. Returned ends	1190.90 (f)	NP	NP 5.5.5	NP 3305 (j)	NP	Ends of freestanding handrails shall be either rounded or returned smoothly to the floor or the post and shall comply with protruding objects.
e. Hazardous extensions	NP	NP	5.4.4	NP	NPTD	Handrail extensions shall not intrude into other paths of travel and shall be turned out of the path of travel as required to accommodate the prescribed dimensions.
f. Returned ends	1190.90 (f)	NP	ND 5.5.5	ND 3305 (j)	NP	Ends of free standing handrails shall be either rounded or returned smoothly to the floor or the post.
4. Switchbacks	1190.90 (b)(4)	ND A117.1 4.8.5 (2)	ND 5.1.6	3305 (j)	NPTD	Handrails shall be designed and mounted so that the inside handrail on switchbacks or dogleg ramps shall be continuous (requires continuous the full length of the ramp).
5. Recessed	1190.90 (b)(3)	ND A117.1 4.26.2	NP	NP	NP	Handrails may be mounted in recesses if the recess is a maximum of 3" - 75 mm deep and extends at least 18" - 455 mm above the top of the rail.
6. Freestanding	1190.90	NP	NP	NP	NP	Freestanding rails located farther than 6" - 15 mm from the wall or other vertical surfaces are not considered as mounted adjacent to the wall.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	QSA	
HANDRAILS/HANDGRIPS (cont'd)						
B. Handgrips						
1. Size/shape						
a. Diameter minimum	1190.90 (b)(1) .150(g) (1)	ND A117.1 4.16.4 4.16.2	ND 5.5.2	ND 1711 (4) 3305 (j)	ND 2-1711 (h)(1)	The handgrip portion of handrails or grab bars, if round, shall be not less than 1 1/4" - 32 mm in diameter.
b. Diameter maximum	1190.90 (b)(1) .150(g) (1)	A117.1 4.16.4 4.26.2	5.5.2	ND 1711 (4) 3305 (j)	2-1711 (h)(1)	The handgrip portion of handrails or grab bars, if round, shall be not more than 1 1/2" - 38 mm in diameter for grab bars and not more than 2" - 50 mm (1 1/2" - 38 mm) in diameter for handrails.
c. Other than round	1190.90 (b)(2)	A117.1 4.26.2	5.5.2	NP	2-1711 (h)(1)	If the handgrip portion of handrails is not round (grip bars must be round), then the larger dimension shall not be more than 2" - 50 mm (1 1/2" - 32 mm). The smaller dimension shall not be less than 1/4" and the shape shall provide an equivalent gripping surface.
d. Minimum radius	1190.90 (b)(2)	ND A117.1 4.26.4	ND 5.5.5	3305 (j)	ND 2-1711 (h)(3)	The edges shall have a 1/8" - 3 mm minimum radius (no sharp corners).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
HANDRAILS/HANDGRIPS (cont'd)						
2. Surface						
a. Hazard free	1190.90 (b)(c) (2) .150	ND A117.1 4.26.2 4.16.4	5.5.5	NP	ND 2-1711 (h)(3)	The handgrip portion of the handrail or grab bar shall be continuous, shall not be interrupted with newel post, baluster or other obstruction, and shall be free of any sharp or abrasive elements (as to allow continuous sliding of hands). Shall not rotate in their fittings.
b. Adjacent surface	1190.70 (f)(2) (6)	ND A117.1 4.26.4 4.26.2	ND 5.5.5 5.1.6	NP	ND 2-1711 (h)(3)	The adjacent surface next to the handgrip shall be free of any sharp or abrasive elements. Freestanding handrails are not subject to this provision.
3. Wall clearance	1190.70 (f)(2) .90(b)(2) .150(g) (1)	ND A117.1 4.9.4 4.16.4 4.26.2	ND 5.1.6 5.5.1 5.5.2 5.6.4	ND 1711 (j) 3305 (j)	ND 2-1711 (h)(1)	If accessible handgrips for handrails are mounted adjacent to the wall, then grab bars must be mounted adjacent to the wall. The clear space between the adjacent surface and the handgrip shall be 1 1/2" - 38 mm.
4. Structural strength specifications						ATBCB, ANSI and GSA differ in their method of testing and technical requirements. ATBCB requires handrails tested as they are installed. ANSI requires handrails to be tested as they are manufactured, specifying the strength of the materials, whereas GSA gives a simplified version for testing.
a. According to ATBCB	1190.90 (e)			NP	NP	Handrails as installed shall support a minimum momentary concentrated load applied at the top edge of 200 lbs - 91 Kg. horizontally and 30% of that load vertically downward. Where the railing system is installed in public assembly occupancies, the loading shall be increased 50%. Handrails shall not rotate within their fittings. Handrails of material other than metal shall meet the same structural requirements.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
HANDRAILS/HANDGRIPS (cont'd)						
b. According to ANSI		A117.1 4.26.3		NP	2-1711 (h)(2) (A)(B) (C)(D) (E)	(1)The bending stress in a handrail induced by the maximum bending movement from the application of 250 lbs - 1,112 N shall be less than allowable stress for the material. (2)Sheer stress induced in a handrail by the application of 250 lbs. - 1,112 N shall be less than the allowable for the material. If the connection between the grip portion of the handrail and its mounting bracket or other support is considered to be fully restrained, then direct and torsional sheer stress shall be totaled for the combined sheer stress which shall not exceed the allowable sheer stress. (3)Sheer force induced in a fastener or mounting device from the application of 250 lbs. - 1,112 N shall be less than allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load. (4)Tension force induced in a fastener by a direct tension force of 250 lbs. - 1,112 N shall be less than the allowable withdrawal load between the fastener and the supporting structure. The handgrip portion of the rail shall not rotate within the fittings.
c. According to GSA			5.5.3	NP	NP	The anchoring for components of handrails and grab bars shall be capable of supporting 250 lbs. - 114 Kg force as applied in any direction at any point along the rail or grab bar.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
VIII. HAZARD WARNINGS						
A. Tactile Walking Surfaces						
1. Vehicular areas	NP	A117.1 4.7.12 4.29.5	NP	NP	NP	If an accessible route or space crosses or adjoins a frequently used vehicular way and if there are no curbs, railings, or other elements detectable by a person who has severe visual impairment separating the pedestrian and vehicular areas, then the boundary between the areas shall be defined by a continuous 36" - 915 mm wide tactile warning texture.
2. Stairs	NP	A117.1 4.29.4	NP	NP	NP	All stairs, except those in dwelling units, enclosed in stair towers or set to the side of the path of travel, shall have a tactile warning at the top of the stair run. The tactile warning shall be 3'0" - 915 mm in width.
a. Upper approach	NP	NP	NP	NP	2-3305 (r)	The upper approach and lower tread of a stair shall be marked by a strip of clearly contrasting color at least 2" - 51 mm wide placed parallel to and not more than 1" - 25 mm from the nose of the step or landing that is at least as slip-resistant as the other treads of the stair.
b. Lower approach	NP	NP	NP	NP	2-3305 (r)	Where stairways occur outside a building the upper approach and all treads shall be marked by a strip of clearly contrasting color at least 2" - 51 mm wide placed parallel to and not more than 1" - 25 mm from the nose of the step or landing to alert the visually impaired. The strip shall be of a material that is at least as slip resistant as the other treads of the stair. A painted strip shall be acceptable.
3. Abrupt Level Changes	NP	A117.1 4.29.6 A4.29.2	NP	NP	2-3324 (a)	Abrupt changes in level except between walk or side walk and adjacent streets or driveways exceeding 4" - 101.6 mm in a vertical dimension shall be identified by curbs projecting at least 6" - 152.4 mm above the walk. Where a guardrail is provided no curb is required.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
HAZARD WARNINGS (cont'd)						
4. Reflecting Pools	NP	A117.1 4.29.6 A4.29.2	NP	NP	NP	The edges of reflecting pool shall be protected by railings, walls, curbs, or tactile warning.
5. Drinking fountains	NP	NP	NP	NP	2-1712 (b)	The surface of the path of travel at a drinking fountain shall be textured so that it is clearly identifiable by a blind person using a cane. The minimum textured area shall extend from the wall supporting the drinking fountain to the front edge of the drinking fountain and shall extend 1'0" - 305 mm beyond each side or wing walls shall be provided on each side.
6. Curb ramps	NP	A117.1 4.7.7	NP	NP	2-7103 (g)(h) (i)	A curb ramp shall have a tactile warning texture extending the full width and depth of the curb ramp, including any flares. (The surface of each curb ramp and its flared sides shall be of a contrasting finish from that of the adjacent sidewalk. The surface of each curb ramp located in the center of the curb return shall be grooved parallel to the centerline of the crosswalks typically in two directions with 1/4" by 1/4" (6.4 x 6.4 mm) grooves approximately 1 1/2" - 38 mm on center. All curb ramps shall have a 1'0" - 305 mm grooved border at the level surface of the sidewalk).
7. Boarding platforms	NP	NP	NP	NP	2-3324 (c)	Passenger loading or boarding platforms in transportation terminals or similar facilities shall be identified by a light colored band of clearly contrasting texture and color at least 1'6" - 458 mm in width. Contrasting striping or other alternatives will be permitted where the resultant patterns, color, or alternative adequately identifies the edge.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
HAZARD WARNINGS (cont'd)						
B. Walking Surface Textures						
1. Contrast	NP	A117.1 4.29.2 4.29.7	NP	NP	NP	The tactile hazard warning texture on walking surfaces shall consist of exposed aggregate concrete, rubber or plastic cushioned surfaces, raised stripes, or grooves. Textures shall contrast with that of the surrounding surface.
2. Grooves	NP	A117.1 4.29.2 4.29.7	NP	NP	NP	The grooves between the raised portion of the tactile warning texture shall be 1/8" - 3.2 mm deep by 1/4" to 3/4" - 6.4 mm to 19 mm wide. The raised portion shall be 1/8" - 3.2 mm high by 3/4" to 2" - 19 mm to 51 mm wide. Grooves may be used indoors only. Textured surfaces for tactile warnings shall be standard within a building, facility, site, or complex of buildings.
C. Hardware						
1. Hazardous areas	1190.130 (g)	ND A117.1 4.29.3	ND 5.3.8 5.11.6	NP	NP	The operating hardware of doors that lead to areas that may prove hazardous to the blind shall provide a textured surface. Such areas may include, but are not limited to loading platforms, mechanical equipment rooms, boiler rooms, stages and similar spaces. The textured surface may be achieved by knurling, roughening, or applying materials on the hand contact surface.
2. Emergency exits	1190.130 (g)	ND A117.1 4.29.3	ND 5.3.8 5.11.6	NP	NP	Such textured surfaces shall not be provided for emergency exit or egress doors or any doors other than those leading to hazardous areas.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
HAZARD WARNINGS (cont'd)						
D. Barriers						
1. Ramps and landings	1190.70 (f)(3)	ND A117.1 4.8.7	5.1.7	NP	2-3306 (e)	Ramps and landings with drop-offs (greater than 6" - 153 mm) (exceeding 4" - 102 mm) shall have curbs, walls, railings, or projecting surfaces that prevent people from slipping off the ramp. Curbs shall be a minimum of 2" - 50 mm high (no provisions for height of curb) (6" - 153 mm, but not required if guards or handrails are provided).
2. Vertical clearance	1190.50 (e)	NP	ND 5.4.5	NP	NP	If the vertical clearance of the area adjoining the accessible route is less than 6'8" - 2,030 mm, a barrier shall be provided to warn the visually impaired.

Category/Topic	Standard/Requirement					Summary of Coverage			
	ATBCB	ANSI	GSA	UBC	OSA				
IX. PARKING						Required minimum of accessible parking spaces to regular parking spaces.			
A. Number									
1. Minimum	1190.31	A117.1 4.6.1	4.3.2	NP	2-7102 (9)	ATBCB	ANSI	GSA	OSA
						1 per 1- 25 2 per 26- 50 3 per 51- 75 4 per 76- 100 5 per 101- 150 6 per 151- 200 7 per 201- 300 8 per 301- 400 9 per 401- 500 501 - 1,000 2% of total 1,001 - 20 plus 1 for each 100 over 1,000	Reasonable number but no less than one space.	1-2 per 2-400 or 2% of total - whichever is greater 7-8 per over 401 plus 1% of total above 401	1 per 0- 40 2 per 41- 80 3 per 81- 120 4 per 121- 300 5 per 301- 500 501 - 1 per each 200 spaces over 501
2. Government vehicle exception	1190.31	NP	NP	NP	NP	If any parking is provided for employees or visitors, or both, each parking area shall provide accessible spaces according to the table. Exception: accessible parking does not apply to parking provided for official government vehicles owned or leased by the government and used exclusively for government vehicles.			
3. Less than 10 spaces	NP	NP	NP	NP	2-7102	When less than 5 parking spaces are provided, one shall be accessible. However, there is no requirement that the space be reserved for handicapped.			

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA ***	
PARKING (cont'd)						
B. Location						
1. Nearest to entrance	1190.60 (b)(1)	ND A117.1 4.6.2	ND 4.3.2	NP	2-7102 (b)	Accessible parking spaces shall be the spaces located closest to the nearest accessible entrance (as practical) or to an accessible route (or shall be located to provide for safety and optimum proximity to the entrance of the greatest incidence of use, when more than one building is served by the parking lot).
2. Separate	1190.60 (b)(2)	ND A117.1 4.6.2	NP	NP	NP	Accessible parking spaces, if located in a separate building or facility, shall be on the shortest accessible route to an accessible entrance of the parking facility.
3. Hazard	NP	NP	NP	NP	2-7102 (b)	Accessible parking spaces shall be located so that handicapped persons are not compelled to wheel or walk behind parked cars other than their own.
C. Stall						
1. Width	1190.60 (c)(1)	ND A117.1 4.6.3	ND 4.3.3	NP	2-7102 (b)	Accessible parking stalls widths shall be at least 8'0" - 2,440 mm (9'0" - 2,745 mm).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
PARKING (cont'd)						
2. Length	NP	NP	NP	NP	2-7102 (b)	Accessible parking spaces' length shall be at least 18'0" - 5,490 mm.
3. Slope	1190.60 (c)(5)	NP	4.3.3	NP	2-7102 (c)	Accessible parking stall shall have surface slopes not exceeding 1:48 (1:50), 1/4" per foot in all directions (cross slope) (1:24 - 1/2" per foot). Note: for all practical purposes 1:50 is 1/4" per foot.
4. Vertical clearance	1190.60 (e)	NP	NP	NP	2-7102 (e)	Accessible parking stalls shall provide a minimum vertical clearance of 9'6" - 2,898 mm (8'2" - 2,491 mm).
D. Vehicle Access Clearance	1190.60 (e)	NP	NP	NP	NP	Accessible parking shall also provide a minimum vertical clearance of 9'6" - 2,898 mm along vehicle access routes to the parking spaces from the parking site entrance.
E. Parking Access Aisle Location						
1. Adjacent	1190.60 (c)(2)	ND A117.1 4.6.3	ND 4.3.3	NP	2-7102 (b)	Accessible parking spaces shall have an adjacent access aisle (5'0" - 1,520 mm wide).
2. Common	1190.60 (c)(3)	ND A117.1	ND 4.3.3		2-7102 (b)	Accessible parking spaces may share a common access aisle between two parking spaces (5'0" - 1,520 wide).
F. Pedestrian Access						
1. Accessible route	1190.60 (c)(2)	ND A117.1 4.6.3	4.3.4	ND	2-7102 (b)	Accessible parking space aisles shall be considered a part of an outside accessible route (ramps shall not encroach into any parking space) the surface shall be stable, firm and of sufficient texture or abrasion to resist slippage.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
PARKING (cont'd)						
2. Ramp encroachment	1190.60 (c)(4)	ND A117.1 4.6.3	ND 4.3.3	NP	ND 2-7102 (b)(1)	Ramps located at the front of accessible spaces may encroach into the length of the spaces when encroachment does not limit the capability to leave or enter the vehicle.
3. Vehicle encroachment	1190.60 (c)(4)	ND A117.1 4.6.3	4.3.3	NP	2-7102 (b)	Accessible parking shall not permit parked vehicle overhangs to reduce the clear width of accessible routes (a bumper or curb) (wheelstops, railings, billiards or other devices) (shall be provided and located to prevent encroachment).
4. Slope	1190.60 (c)(5)	A117.1 4.3.7	4.3.3	NP	2-7102 (c)	Accessible parking space aisles shall have surface slope not exceeding 1:48 (1:50) 1/4" per foot (1:24 - 1/2" per foot) in all directions (1:50, 1/2" per foot across slope and 1:20 running slope).
5. Transitions	NP	NP	4.4.3	NP	NP	Access aisles shall have smooth transitions with adjoining walkways, whether by forming at a common level or by use of curb ramps.
G. Access Aisle Width						
1. Minimum	1190.60 (c)(2)	ND A117.1 4.6.3	4.3.3	NP	ND 2-7102 (b)	Accessible parking access aisles shall be at least 5'0" - 1,525 mm (4'6" - 1,373 mm) wide (allowing room for individuals in wheelchairs, braces, or crutches to get in and out of an automobile onto a level surface).
2. Side van	1190.60 (c)(2) (1)	NP	NP	NP	NP	If accessible parking spaces for side lift vans are provided, each shall have an adjacent access aisle at least 8'0" - 2,440 mm wide.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
X. PASSENGER LOADING/UNLOADING ZONES						
A. Number	1190.31 (b)(2)	ND A117.1 4.6.4	NP	NP	NP	If passenger loading zones are provided, at least one passenger loading zone shall be accessible.
B. Location	1190.60 (b)(1)	ND A117.1 4.6.2	NP	NP	NP	Accessible passenger loading zones shall be the spaces or zones located closest to the nearest accessible entrance of an accessible route.
C. Adjacent Aisle	1190.60 (d)(1)	A117.1 4.6.5	NP	NP	NP	Accessible passenger loading zone aisles shall be adjacent, parallel and level with the vehicle standing space (does not require the aisle to be level with the vehicle standing space and allows a curb).
D. Aisle Width	1190.60 (d)(1)	ND A117.1 4.6.5	NP	NP	NP	Accessible passenger loading zones shall have an access aisle at least 4'0" - 1,220 mm wide.
E. Aisle Length	1190.60 (d)(1)	ND A117.1 4.6.5	NP	NP	NP	Accessible passenger loading zones shall have an access aisle at least 20'0" - 6 m long.
F. Slope	1190.66 (d)(3)	A117.1 4.3.7	NP	NP	NP	Accessible passenger loading zones shall have a vehicle standing space and access aisle with a surface slope not exceeding 1:48 - 1/4" per foot in all directions (1:50 - 1/4" per foot cross slope and 1:20 running slope).
G. Curb Ramps	1190.60 (d)(2)	A117.1 4.6.5	NP	NP	NP	Accessible passenger loading zones shall have curb ramps conforming to accessible curb ramps between access and other portions of accessible routes (also allows for accessible curb ramps to be between adjoining vehicle standing space and to curb).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
PASSENGER LOADING/UNLOADING ZONES (cont'd)						
H. Vertical Clearance	1190.60 (e)	NP	NP	NP	NP	Accessible passenger loading zones shall have a minimum vertical clearance of 9'6" - 2,898 mm.
I. Vehicle Clearance	1190.60	NP	NP	NP	NP	Accessible passenger loading zones shall also provide a minimum vertical clearance of 9'6" - 2,898 mm along the vehicle access route to the passenger loading zones.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
XI. RAMPS						
A. Curb Ramps/Cuts						
1. Number	1190.31 (c)	ND A117.1 4.7.1	4.4.2	NP	2-7103 (a)	Curb ramps shall be provided whenever an accessible route crosses a curb (and at each corner or street intersection and where a pedestrian way crosses a curb).
2. Location						
a. Built-up	1190.70 (e)(2)	ND A117.1 4.7.6	4.4.2	NP	NP	Built-up curb ramps shall be located so that they do not project into vehicular traffic lanes (least preferred method; should only be used when no other alternatives are available).
b. Diagonal	1190.70 (e)(6)	ND A117.1 4.7.1	4.4.2	NP	NP	Diagonal or corner type curb ramps shall be located to have at least a 2'0" - 610 mm long segment of straight curb on each side of the curb ramp and within the marked crossing (no dimensions specified).
c. Island ramps	1190.70 (e)(6)	ND A117.1 4.7.1	NP	NP	NP	Road islands shall be cut flush with the street surface or ramp on each side to permit a crossing with a 4'0" - 1,220 mm long rest areas.
d. Center curb	NP	NP	4.4.2	NP	2-7103 (a)	Where it is necessary to locate a curb ramp in the center of the curb return and the street surfaces are marked to identify pedestrian crosswalks, the lower end of the curb ramp shall terminate within such crosswalks (and to one side of the crosswalk).
e. Preference	NP	NP	NP	NP	2-7103 (a)	The preferred and recommended location for curb ramps is in the center of the crosswalk of each street corner.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
RAMPS (cont'd)						
f. Discharge	1190.70 (e)(4)	ND A117.1 4.7.10	ND 4.4.2	NP	2-7103 (d)	Curb ramp shall be located so that the discharge, top and bottom, shall have a 4'0" - 1,220 mm minimum deep clear space (top only).
g. Obstructions	1190.70 (e)(5)	ND A117.1 4.7.8	4.4.2	NP	NP	The curb ramps shall be located to prevent blockage (obstruction) of discharge areas by parked vehicles.
h. Pedestrian crossing	1190.70 (e)(4)	A117.1 4.7.9	ND 4.4.2	NP	NP	If marked pedestrian crossings are provided, the bottom discharge shall be located entirely within the marked crossing (excluding any flared sides).
3. Width						
a. Minimum	1190.70 (c)	ND A117.1 4.7.3	ND 4.4.5	ND 3306 (b)	2-7103 (b)	Curb ramps shall have minimum clear width of 3'0" - 915 mm (4'0" - 1,220 mm) exclusive of edge protection or flared sides.
4. Slope						
a. Maximum	1190.70 (c)	ND A117.1 4.7.2	4.4.3	ND 3306 (c)	ND 2-7103 (c)	Accessible routes shall provide the least slope practical for any curb ramp with maximum running slope not exceeding 1:12 (8.3%) (except for existing sidewalks, where a maximum slope of 1:8 may be used if it is impossible to install a more gradual slope).
b. Adjoining	1190.70 (e)(8)	NP	NP	NP	NP	The maximum slope of adjoining gutters, road surfaces or accessible routes shall not exceed 1:20 (5%) and shall be flush and free of abrupt changes.
c. Transition	NP	NP	4.4.4	NP	NP	A flush smooth transition shall be provided at the junction of a curb ramp with a grade or street level.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
RAMPS (cont'd)						
d. Beveled lips	NP	NP	NP	NP	2-7103 (b)	The lower end of each curb cove shall have a 1/2" - 12.7 mm lip beveled at 45 degrees.
5. Cross slope	1190.70 (d)	A117.1 4.3.7	NP	NP	2-7103 (e)	The cross slope of ramp surfaces shall not exceed 1:48 - 1/4" per foot (1:50) (requires minimum cross slope).
6. Surface	1190.50 (1) .70(d)	ND A117.1 4.5.3	ND 4.4.8	ND 3306 (g)	2-7103 (f)	The surface shall comply with ROUTES/SPACES (and shall be of a contrasting finish of the adjacent walk).
7. Edge treatment						
a. Flared Sides						
(1) Where needed	1190.70 (e)	ND A117.1 4.7.5	ND 4.4.6	NP	NP	Curb ramps shall provide flared sides if the ramps are located where pedestrians may walk across the ramp.
(2) Slope--4'0" landings	1190.70 (e)	ND A117.1 4.7.5 4.7.10	4.4.6 (c)	3306 (c)	2-7103 (d)	The flared slope shall not exceed 1:10 (1:8) where a 4'0" - 1,220 mm landing is provided at the top of the curb ramp (no landing width).
(3) Slope--less than 4'0" landings	1190.70 (e)(1)	NP	NP	NP	NP	If less than a 4'0" - 1,220 mm landing at the top is provided the flared slope shall not exceed 1:12.
b. Returned curbs	1190.70 (e)(3)	ND A117.1 4.6.5 4.7.10	4.4.6	NP	NP	Where pedestrians will not normally walk across a ramp, returned curbs may be used if they are parallel to the direction of pedestrian flow (flared sides may be omitted).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
RAMPS (cont'd)						
8. Handrails						
a. When needed	1190.70 (e)(7)	NP	5.1.6	NP	2-3306 (e)	Curb ramps having less than a 6" - 150 mm rise do not require handrails (exempts curb ramps from handrails) (when slope exceeds 1:15).
B. Pedestrian Ramps						
1. Location						
a. Vertical access	1190.50 (g)(3) (f)	ND A117.1 4.3.7 4.3.8	ND 4.2.5 5.1.1	NP	NP	Where there is an abrupt level or grade change greater than 1/2", where the slope is greater than 1:20 and no other means of accessible vertical access is provided, a pedestrian ramp shall be provided.
b. Stairs	1190.50 (g)(4)	ND A117.1 4.3.8	ND 4.2.1	ND 1213	NP	Stairs shall not be the only accessible means of vertical access.
c. Excessive slope	1190.50 (f)	ND A117.1 4.3.7	ND 5.1.1	NP	NP	Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with RAMPS.
2. Width						
a. Minimum	1190.70 (c)	ND A117.1 4.8.3	5.1.3	ND 3306 (b)	NPTD	Pedestrian ramps shall have a minimum clear width of 3'0" - 915 mm (4'0" - 1,220 mm) exclusive of edge protection (no provision for edge protection).
b. Occupant load 300+	NP	NP	NP	NP	NPTD	If the ramp serves an occupant load of more than 300, the minimum width shall be 5'0" - 1,525 mm.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
RAMPS (cont'd)						
c. Occupant load 50+	NP	NP	NP	3306 (b)	NP	If the building that the ramp serves has an occupant load of more than 50, the minimum width shall be 3'8" - 1,118 mm.
d. Occupant load 10-	NP	NP	NP	3306 (b)	NP	Private ramps serving less than 10 may be 2'6" - 763 mm wide.
3. Slope						
a. Maximum new construction	1190.70 (b)	ND A117.1 4.8.2	5.1.2	ND 3306 (c)		Accessible routes shall provide the least slope practical for any pedestrian ramp with a maximum running slope not exceeding 1:12 - 8.3% for new construction (no provision for new construction).
b. Adjoining	1190.70 (b)(1) (iii)(2)	NP	NP	NP	NP	The maximum slope of adjoining gutters, walk surfaces or accessible routes shall not exceed 1:20 - 5% and shall be flush and free of abrupt changes in level.
c. Existing limitations	1190.70 (b)(2)	ND A117.1 4.8.2	NP	ND 3306 (c)	NP	If existing space limitations prevent compliance, the maximum slope may be 1:8 - 12.5%.
4. Rise and Projection						
a. Maximum rise	1190.70 (b)(1) (ii)	ND A117.1 4.8.2	ND 5.1.2	NP	NP	The maximum rise for all pedestrian ramps shall be 2'6" - 760 mm (60" - 1,525 mm).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
RAMPS (cont'd)						
b. Maximum projection	1190.70 (b)(1) (ii)	ND A117.1 4.8.2	ND 5.1.2	NP	NP	The maximum projection or run shall be the maximum rise multiplied by the slope or the maximum rise divided by the percent of slope. **(ATBCB uses a chart but all the figures in the chart may be computed using this formula.)** (NOTE: For the multiplication method to figure maximum projection use the largest number of the slope 1:X. For the division method move the decimal two places to the left before dividing. In both cases the answer will be inches. To convert inches to feet, divide the answer by 12. To find the slope, measure down from the large end of the ramp one unit, then measure the projection or run perpendicular to the rise. Figure $1/_s$.) Landing 1 Unit (Slope) $1/_s$ Projection or Run
5. Cross slope maximum	1190.70 (d)	A117.1 4.8.6	ND 5.1.2	NP	NP	The cross slope of pedestrian ramps shall not exceed 1:48 (1:50), 1/4" per foot.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
RAMPS (cont'd)						
6. Surface	1190.70 (1)(1)	A117.1 4.5.1	ND 4.2.8	3306 (g)	NP	**The surface shall comply with ROUTES/SPACES.** (roughened or of non-slip materials) (under all weather conditions).
7. Landings						
a. Location	1190.70 (b)(1) (11) .70(f)	ND A117.1 4.8.2 4.8.4	5.1.4	3036 (d)	NP	Ramp landings shall be provided at the top, bottom, changes of directions, at 2'6" - 760 mm (5'0") vertical rise intervals, or if the ramp exceeds the maximum projection (top and bottom of each ramp run).
b. Minimum length	1190.70 (f)(1) (11)	ND A117.1 4.8.4	5.1.4	ND 3306 (d)	NP	The minimum length of pedestrian ramp landing shall be 5'0" - 1,525 mm (if no doors or gates swing toward the landing (6'0" - 1,800 mm in 180° change of direction) **(if doors or gates are located at landings see Maneuvering Space for Doors).**
c. Additional length	NP	NP	5.1.4	ND 3306 (d)	NPTD	The minimum length of a pedestrian ramp bottom landing and a change of direction landings shall be 6'0" - 1,830 mm.
d. Minimum width	1190.70 (c)	ND A117.1 4.8.3	ND 5.1.3	3306 (d)	NPTD	The minimum clear width of a ramp landing shall be 3'0" - 915 mm (4'0" - 1,220 mm) (3'6" - 1,068 mm) exclusive of edge protection, if no doors or gates are located at landing. **If doors or gates are located at landing see Maneuvering Space Doors.**
e. At ramp	1190.70 (f)(1) (11)	ND A117.1 4.8.4 (1)	ND 5.1.3	NP	NP	The landing shall be at least as wide as the widest ramp run approaching it.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
RAMPS (cont'd)						
f. Width at direction change	1190.70 (f)(1) (iii)	ND A117.1 4.8.4 (3)	ND 5.1.4	NP	NP	The minimum width of landings at direction changes shall be 5'0" - 1,525 mm.
8. Curbs/Wheel Guides						
a. Location	1190.70	NP	NP	NP	NPTD	Pedestrian ramps shall provide curbs, walls, vertical guards or projected edges at ramps and landings with drop-offs.
b. Minimum height	1190.70 (f)(3)	NP	NP	NP	2-3324 (a)	The minimum curb height shall be 2" - 50 mm in height (or a wheel guide rail shall be provided, centered 3" - 76 mm high plus or minus 1" - 25 mm above the surface of the ramp).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC	OSA ▪▪▪	
XII. ROUTES/SPACES						
A. General	NP	A117.1 4.1.1 (1)(2) (3)(4)	NP	NP	NP	An accessible route/space shall meet the following minimum requirements: Shall have at least one accessible route. **Shall comply with protruding objects; shall comply with ground and floor surfaces.**
B. Location	1190.31 (a)	ND 4.3.1 4.3.2	NP	NP	2-3304 (a)(1) (c)(2) 2-611 (c)(3) (4) 2-710 (a)(1) (A)	At least one route shall be accessible and shall connect an accessible entrance with: transportation facilities located within the property line of a given site, including passenger loading, public transportation, taxi stands, parking, public streets and sidewalks; other accessible buildings, facilities, elements and spaces that are on the same site and all accessible spaces, rooms and elements within the building or facility. Such as but not limited to any buildings or facilities which will require public accessibility or which may result in employment of handicapped persons, which are to be constructed, altered, leased, financed by or on behalf, in whole or part, by the United States, (all personal and public service facilities such as but not limited to banks, savings and loan, credit unions, newspaper and printing, photographic studios, cleaning and laundry facilities, veterinary clinics and medical facilities, auto rental and repair, travel bureaus, public utility facilities, police stations, detention facilities, courtrooms, fire stations, business and professional offices, sales facilities, libraries, parks and recreational facilities, and religious sanctuaries.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ROUTES/SPACES (cont'd)						
C. Width						
1. Minimum	1190.50 (b) .40 (b)(1)	ND A117.1 4.3.3	NP 4.2.2	3304 (b)	2-3304 (b) 2-611 (c)(3) (4) 2-710 (a)(7) (A)	Accessible routes/spaces shall provide 3'0" - 915 mm (3'8" - 1,118 mm) (4'0" - 1,220 mm) minimum clear width for continuous clear passage (providing the occupant load is under 10) (If the aisle is in a library the main aisle width shall be 3'8" - 1,117 mm and the side aisles shall be at least 3'0" - 915 mm wide. All other routes and aisles shall be sized according to functional requirements but in no case shall be less than 3'0" - 915 mm wide).
2. Occupant load	NP	NP	NP	3304 (b)	NP	If occupant load using the clear width exceeds 10, the minimum width shall be 3'8" - 1,118 mm.
3. Excessive length	NP	NP	NP	NP	NPTD	If clear passage exceeds 20'0" - 6,100 mm in length or has door openings into the clear width, the minimum clear width shall be 3'8" - 1,118 mm.
4. Reduction	1190.50 .40 (b)(1)	A117.1 4.3.3 4.2.1 4.13.5	NP	NP	NPTD	The clear width may be reduced to 2'8" - 815 mm (3'0" - 915 mm) for a distance not to exceed 2'0" - 610 mm in length (provided if the clear width is not adjacent to the curb) (at doors only).
5. Passing space	1190.50 (d) .40 (b)(2) (3)	A117.1 4.3.4 4.2.3 4.2.4	4.2.4	NP	NPTD	If an accessible route/space has less than 5'0" - 1,525 mm clear width (or exceeds 90'0" - 27.45 m in length or has an occupant load exceeding 50 persons) accessible passing alcoves that are at least 5'0" - 1,525 mm long that increase the width to 5'0" - 1,525 mm the full length of the alcove, or an intervening cross or "T" that complies to accessible dimensions shall be provided at intervals not exceeding 200'0" - 61 m unobstructed view (does not require unobstructed view) (level zones).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ROUTES/SPACES (cont'd)						
6. "T" turn	1190.40 (b)(3)	ND A117.1 4.2.3	NP	NP	NP	The minimum clear space to make a 180° turn is 5'0" - 1,525 mm diameter or a "T" shaped space that provides a 5'0" - 1,525 mm minimum deep clear space that is 3'0" - 915 mm wide with the width of the wings of the "T" providing a 3'0" - 915 mm wide minimum clear space that is at least 5'0" - 1,525 mm deep from tip to tip.
7. 180° turn minimum	1190.50 (b)	ND A117.1 4.3.3	NP	NP	NP	If the accessible route/space requires a 180° turn around, any obstruction 4'0" - 1,220 mm or less, the minimum width for clear passage, shall be 3'6" - 1,065 mm at the entrances and exits to the turn and a 4'0" - 1,220 mm minimum width in the turn.
8. Doors and gates	NP	A117.1 4.3.9	4.2.7	NP	2-3323 (e)	(Accessible routes/spaces shall comply with Maneuvering Spaces at Doors.) Shall be provided with a level area not less than 5'0" - 1,525 mm by 5'0" - 1,525 mm at a door or gate that swings toward the walk, and not less than 4'0" - 1,220 mm wide by 3'8" - 1,118 mm deep at a door or gate that swings away from the walk. Such walks shall extend 2'0" - 610 mm to the side of the strike edge of a door or gate that swings toward the walk. (Requires a levelness of 1/4" per foot or less).
D. Surfaces						
1. Slip resistant	1190.50 (1)(1) (2)	A117.1 4.5.1	ND 4.2.8	NP	ND 2-1752 (b)	The surface conditions along accessible routes/spaces shall be firm, stable and slip resistant (under all weather conditions).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ---	OSA ▪▪▪	
ROUTES/SPACES (cont'd)						
2. Height differential	1190.50 (1)(1) (2)	NP	NP	NP	NP	Irregular paving and flooring materials that may cause tripping or difficult wheelchair passage because of height differentials are not permitted on or in accessible routes/spaces.
3. Water collection	1190.50	NP	NP	NP	NP	Accessible routes shall be designed so that their surfaces will not collect water.
4. Finish/slope	NP	NP	NP	NP	2-3323 (a)(1) (2)	The surface finish for walks with less than a 1:16 = 6% gradient shall be at least medium slated. The surface finish for walks greater than a 1:16 = 6% gradient shall be at least a wood float finish.
5. Gratings						
a. Dimensions	1190.50 (1)(2)	ND A117.1 4.5.4	ND 4.2.6	NP	ND 2-3323 (b)	Gratings located in accessible walkways shall have openings no greater than 1/2" - 13 mm when measured in the dominant direction of pedestrian travel. Gratings with elongated openings shall be positioned so that the long dimension is perpendicular to the predominant route of travel.
b. Preference	NP	NP	4.2.6	NP	2-3323 (b)	Whenever possible, gratings should not be located within or along walks.
6. Carpets						
a. Attachment	1190.50 (1)(3)	ND A117.1 4.5.3	NP	NP	NP	Carpeting or carpet tile, if used on floors of accessible routes/spaces, shall be securely attached.
b. Firmness	1190.50 (1)(3) (11)	A117.1 4.5.3	NP	NP	NP	Carpeting or carpet tile, if used on floors of accessible routes/spaces shall have a firm cushion or pad (or backing) or no cushion or pad.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ROUTES/SPACES (cont'd)						
c. Level	1190.50 (1)(3) (iii)	ND A117.1 4.5.3	NP	NP	NP	Carpeting or carpet tile, if used on floors of accessible routes/spaces shall have a construction of level loop, textured loop, level cut pile or level cut/uncut pile.
d. Thickness	1190.50 (1)(3) (iv)	A117.1 4.5.3	NP	NP	NPTD	Carpeting or carpet tile, if used on floors of accessible routes/spaces, shall have a maximum combined thickness of pile, cushion, and backing height of 1/2" - 13 mm (ANSI specifies carpet height (1/2") does not include backing and cushion) (OSA specifies carpet density although pile height is used in computing the density).
e. Density formula						$\text{Density} = \frac{36 \times \text{Face Weight}}{\text{Pile Height}}$.
f. Trim	1190.50 (1)(3)(v)	A117.1 4.5.3	NP	NP	NP	Carpeting or carpet tile, if used on floors of accessible routes/spaces, shall have exposed edges and trim securely fastened and shall comply with changes in level (requires trim along the entire length of the exposed edge).
g. Pile height	NP	NP	NP	NP	NPTD	Pile height shall be the height of the pile above the primary backing as determined by a steel rule measure.
h. Static discharge	NP	NP	NP	NP	NPTD	Carpeting or carpet tile, if used on floors of accessible routes/spaces shall have a stable discharge when tested in accordance with ASTM procedures of not more than 3.5 kilovolts.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ROUTES/SPACES (cont'd)						
1. OSA carpet requirements	NP	NP	NP	NP	NPTD	The maximum pile height and minimum face weight of the carpet shall: (a) provide a minimum density factor of 4,600 when padding is used; (b) provide a minimum density factor of 3,600 when a direct glue-down carpet installation is used. The following formula shall be used to determine density: $\text{Density} = \frac{36 \times \text{Face Weight}}{\text{Pile Height}}$ Pile height shall be the height of the pile above the primary backing as determined by a steel rule measurement. Face Weight shall be determined by the ANSI/ASTM-D-418.
7. Level Changes						
a. Common	NP	NP	4.2.5	NP	2-1752	In public-funded buildings and facilities, floors of a given story shall be a common level throughout or shall be connected by ramps, elevators or lifts. Whenever accessible walks cross other walks, driveways, or parking lots, they shall blend to a common level by use of gratings, curb cuts or ramps.
b. Less than 1/4"	1190.50 (g)(1)	ND A117.1 4.5.2	NP	NP	NP	Changes in level up to 1/4" - 6 mm are allowable without edge treatment.
c. 1/4" to 1/2"	1190.50 (g)(2)	ND A117.1 4.5.2	NP	NP	NP	Changes in level between 1/4" to 1/2" - 6 to 13 mm shall be leveled with a slope not exceeding 1:2.
d. Greater than 1/2"	1190.50 (g)(3) (4)	ND A117.1 4.3.8	4.2.5	3304 (f)	ND 2-3323 D 2-1752 (a)	If an accessible route has changes in level greater than 1/2" - 13 mm, then a ramp, elevator or platform lift shall be provided. Stairs shall not be the sole means of vertical access (only provides for a ramp).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC ═══	OSA ▪▪▪	
ROUTES/SPACES (cont'd)						
e. 4" or greater	NP	NP	NP	NP	2-3324 (a)	Abrupt changes in level, except between walks or sidewalks and an adjacent street or driveway, exceeding 4" - 100 mm in a vertical dimension, such as planters or fountains located in or adjacent to pedestrian ways shall have a curb projection at least 6" - 153 mm above the walk or sidewalk. If a guard or handrail is provided, no curb is required.
f. Reflecting pools	NP	A117.1 4.29.6	NP	NP	NP	The edges of reflecting pools shall be protected by railings, walls, curbs, or tactile warnings.
E. Vertical Clearance						
1. Minimum	1190.50 (3)	ND A117.1 4.4.2 4.3.5	ND 5.13.1	3304 (x)(c)	2-3304 (c) 2-1721 (b)	Accessible routes/spaces provide a minimum vertical clearance (headroom) of 6'8" - 2,030 mm (7'0" - 2,135 mm).
2. Reduction warning	1190.50 (e)	NP	ND 5.4.5	NP	NP	If vertical clearance of the area adjoining the accessible route is less than 6'8" - 2,030 mm, a barrier shall be provided to warn the visually impaired.
F. Protruding Objects						
1. Width reduction	1190.50 (c)	ND A117.1 4.4.1	NP	ND 3304 (d)	ND 2-1721 (a)	No protruding objects shall reduce the clear width of an accessible route or maneuvering space below the minimum width requirements.
2. Mounting measurements	1190.50 (c)(1)	A117.1 4.4.1	NP	NP	ND 2-1721 (a)	Objects less than 2'0" - 613 mm long that are fixed to wall surfaces shall not project more than 4" - 100 mm if mounted between 2'3" and 6'8" - 685 and 2,030 mm above the surface (has no length requirement).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
ROUTES/SPACES (cont'd)						
3. More than 4"	1190.50 (c)(1)	ND A117.1 4.4.1	NP	NP	ND 2-1721 (a)	Objects may protrude more than 4" - 100 mm if mounted less than 2'3" - 685 mm above the surface or if protected by wing walls or in alcoves.
4. Freestanding	1190.50 (c)(2)	NP	NP	NP	ND 2-1721 (a)	Freestanding objects mounted on post or pylons may overhang 1'0" - 305 mm maximum if mounted between 2'0" to 6'8" - 685 to 2,030 mm above the surface.
5. Height	1190.50 (c)(3)	NP	NP	NP	ND 2-1721 (a) 2-3324 (b)	Objects greater than 1'0" - 305 mm wide may protrude any distance if mounted less than 2'3" - 685 mm above the surface.
6. Nonstructural exception	NP	NP	NP	3304 (d)	NP	Handrails, and doors, when fully opened, shall not reduce the required width by more than 7". Doors in any position shall not reduce the required width by more than 1/2". Other nonstructural projections such as trim and similar decorative features may project into the required width 1 1/2" on each side.
G. Emergency Egress						
1. Adjoining	1190.230 (b) .50(h)	ND A117.1 4.3.3 4.3.10	NP	ND 3304 (a)(e)	NP	All accessible spaces shall adjoin an accessible route of emergency egress arranged so as to be readily accessible.
2. Continuous	1190.50 (h)	NP	NP	ND 3304(a)	NP	Egress shall be arranged to provide a continuous and unobstructed way or exit travel from all accessible rooms or spaces in a building or facility to an exterior walk or out of a fire zone. It includes all intervening rooms, spaces or elements.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	QSA	
ROUTES/SPACES (cont'd)						
3. Foyer exception	NP	NP	NP	3304(a)	NP	Exception - Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening.
4. Minimum number	1190.50 (h)	A117.1 4.3.10	NP	ND 3304(a)	NP	Where fire code provisions require more than one means of egress from any space or rooms, such means of accessible egress shall also be provided to handicapped persons (requires a reasonable number but always at least one).
5. Exception-- tall buildings	1190.50 (h)(1)	A117.1 4.3.10	NP	NP	ND 2-1002 (b)(2)	Exception - In multiple story buildings and facilities where at-grade egress from each floor is impossible, approved fire and smoke partitions within each story creating horizontal exits shall be provided or areas of refuge within each floor approved by agencies having authority for safety shall be provided (does not define place of refuge).
6. Refuge Area	NP	NP	NP	NP	2-1002 (b)2	Multi-story buildings accommodating more than 6 nonambulatory persons unless provided with a horizontal exit shall be divided into not less than 2 compartments accommodating approximately the same number of nonambulatory persons in each compartment by a smoke-stop partition meeting the requirements of a one hour occupancy separation. Smoke-stop partitions shall be continuous from outside wall to outside wall, and from the floor to the underside of the floor or roof above.
7. Emergency plan	NP	A117.1 4.2.0	NP	NP	ND 2-1002 (b)2	In buildings where physically handicapped are regularly employed or are residents, an emergency management plan for their evacuation also plays an essential role in fire safety.
8. Doors	1190.31	ND A117.1 4.3.9	NP	NP	ND 2-1002 (b)2	Each door as a part of an egress system shall comply with the regulations on doors.

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Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA	
ROUTES/SPACES (cont'd)						
9. Locked doors	NP	NP	NP	NP	2-3303 (m)	Locked exit doors shall operate in egress direction.
10. Exits	NP	NP	NP	NP	2-3303 (m)	Exits shall be so accessed that it is possible to go in either direction in a corridor to a separate exit except for dead ends not to exceed 200" in length.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
XIII. SEATING AND WORK SURFACES						
A. Minimum Number	1190.31 (r)	A117.1 4.32.1	NP	NP	2-812 (a)	If fixed seating, tables and work surfaces are provided, at least 5 percent of each element shall be accessible (reasonable number but always at least one). (One for every 40 in an educational setting.)
B. Clear Floor Area	1190.220 (b)(1)	ND A117.1 4.32.2	NP	NP	2-710 (a)(4) (B)	Accessible seating spaces for people in wheelchairs at tables, counters, work surface or desks shall have a clear floor area 2'6" - 760 mm wide in the forward reach direction by 4'0" - 1,220 mm long in the side reach direction. (Employee work areas shall have 3'0" - 915 mm wide clear access).
C. Maneuvering Space	NP	A117.1 4.32.2	NP	NP	NP	Accessible seating spaces for people in wheelchairs at tables, counters, work surface or desks shall have maneuvering spaces at least 3'0" - 915 mm deep between the table, counter, work surface, or desk, and an obstruction).
D. Knee Clearance	1190.220 (b)(2)	ND A117.1 4.32.3	NP	NP	NP	Accessible seating for people in wheelchairs at tables, counters, work surfaces, or desks shall have knee clearance at least 2'3" - 385 mm high, 2'6" - 760 mm wide and 1'7" - 485 mm deep. Clear access space and knee space may overlap 1'7" - 485 mm.
E. Work Surface Height	1190.220 (b)(3)	ND A117.1 4.32.3	NP	NP	NP	Accessible seating spaces for people in wheelchairs at tables, counters, work surfaces or desks shall have table tops, work surfaces or desks mounted between 2'4" - 710 mm and 2'10" - 865 mm above the finished floor.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
SEATING AND WORK SURFACES (cont'd)						
F. Convenient Height	NP	A117.1 A4.32.2	NP	NP	NP	(Table shows convenient heights of work surfaces for seated persons.) Table 1 Seated in a wheelchair: Short/Women — Tall/Men Normal work like rolling dough Desk or removable armrest: 2'2" - 660 mm + — 2'6" - 760 mm+ Fixed, full-sized armrest: 2'8" - 815 mm I — 2'8" - 815 mmI Light, detailed work like writing Desk or removable armrest: 2'5" - 735 mm + — 2'10" - 865 mm+ Fixed, full-sized armrest: 2'8" - 815 mm I — 2'10" - 865 mmI All dimensions are based on work surface thickness of 1 1/2" - 38 mm and a clearance of 1 1/2" - 38 mm between legs and the work surface. + wheelchair arm does not interfere with positioning of wheelchair I dimension limited by height of wheelchair armrest although lower surface would be preferable.
G. Hardship Exception	NP	NP	NP	NP	2-812 (a)	Where the enforcing agency determines that it would create an unreasonable hardship to require compliance, such facilities need not comply.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
XIV. SIGNAGE						
A. Accessible						
1. Width to height	1190.200 (b)(1)	ND A117.1 4.30.2	ND 5.11.2	NP	ND 2-1720 (d)	Accessible signage shall have a width to height ratio between 3:50 and 1:1 and a stroke width/height ratio between 1:5 and 1:10 for letters and numbers on the sign.
2. Contrast and color	1190.200 (b)(3)	A117.1 4.20.3	ND 5.11.4	NP	2-1720 (b)(e)	The symbol shall contrast in value with its background, preferably light figures on dark backgrounds (only requires a contrasting background) (a white figure on blue background. The blue shall be equal to color 15090 in the Federal Standard 595A).
3. Finish	1190.200 (b)(4)	NP	5.11.4	NP	NPTD	Accessible signage shall have a matte finish on a matte finish background (non glare surface on non glare background).
4. Raised/incised	1190.200 (c)(1)	A117.1 4.20.4	ND 5.11.2	NP	ND 2-1726 (f)	Accessible signage shall provide numbers, letters, symbols and pictographs that are raised or incised from the background surface 1/32" - 0.8 mm, between 5/8" and 2" - 16 mm to 50 mm high and shall be sans serif with sharply defined edges if it is incised, it shall have at least a 1/4" - 6 mm stroke width (does not require raised or incised characters but specifies the dimensions if used).
5. Temporary exceptions	1190.200 (a)(1)	NP	NP	NP	NP	Exception - Temporary information signage need not comply with the provisions of raised or incised signage.
6. Mounting	1190.200 (d)(1)	NP	5.11.3	NP	NP	Accessible signage shall be placed in standardized locations throughout a building or facility located alongside of the door on the latch side (whenever possible) and shall be mounted between 4'6" and 5'6" - 1,350 and 1,645 mm above the finished floor.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
SIGNAGE (cont'd)						
7. International symbol	1190.31 (p)(2)	ND 4.30.5	ND 5.11.5	NP	ND 2-1720 (a)	If accessible facilities are identified, then the international symbol of accessibility shall be used.
8. Size	1190.200 (e)	NP	NP	NP	NP	The symbol, if to be viewed from an exterior distance greater than 60'0" - 18.3 it shall be 8" - 200 mm square. If viewed from an exterior distance less than 60'0" - 18.3 m, the symbol shall be 4" - 100 mm square. If the symbol is to viewed from an interior distance greater than 30'0" - 9 m, the symbol shall be 4" - 100 mm square. The symbol, if to be viewed from an interior distance up to 30'0" - 9 m, the symbol shall be 2 1/2" square - 65 mm square.
B. Information						
1. Room identification	1190.31 (p) .200 (b)(1)	ND A117.1 4.30.2	5.11.1	NP	NP	Informational and identificational signage, if provided, shall be accessible signage (requires informational and/or identificational signage at entrances to accessible rooms and public spaces, specifically, permanent room numbers and permanent space titles shall comply with accessible signage).
2. Accessible facilities	1190.33	NP	NP	NP	NP	If a building contains some but not all accessible elements and spaces, informational signage directing the user to accessible facilities shall be placed at each accessible entrance.
3. Entrances	1190.33 (a)(4)	NP	NP	NP	NP	Each inaccessible entrance shall have informational signage directing the user to the accessible entrance or entrances.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	QSA	
SIGNAGE (cont'd)						
4. Sanitary facilities	NP	NP	NP	NP	2-1720 (h)	Buildings that have been remodeled to provide specific sanitary facilities for public use that conform to the regulations shall have this information posted in the building lobby, preferably as part of the building directory.
5. Inaccessible entrance	1190.33 (a)(4)	NP	NP	NP	NP	Each inaccessible entrance to a toilet or bathing facility shall have signage directing the user to the accessible entrance or accessible toilet room.
C. Identification						
1. Elevator floor buttons	1190.100 (d)(3) (v)	A117.1 4.10.12	5.9.1	NP	NPTD	Accessible passenger elevator controls or floor buttons shall be designated by raised (or indented) standard alphabet characters for letters, arabic characters for numerals and standard symbols located immediately to the left of the button to which they apply (refers to ANSI A17.1 and NEII).
a. Braille symbols	NP	NP	NP	NP	2-1720 (c)	Raised braille symbols shall be placed directly to the left of the corresponding standard alphabet characters, arabic characters or standard symbols. The raised braille symbols shall be Contracted Gade 2 Braille. The dots shall be 0.1" = 2.5 mm space between the cells. The dots shall be raised a minimum of 0.025" = 0.6 mm above the background.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
SIGNAGE (cont'd)						
b. Standard symbol	1190.100 (d)(3) (v)	ND A117.1 4.10.12 (2)	5.9.1	NP	NP	The standard symbols for accessible passenger elevator control buttons, other than the standard numeral or letters, shall be as follows (refers to ANSI 17.1, 1978 and NE11).
c. Main entry symbol	1190.100 (d)(3) (v)	ND A117.1 4.10.12 (2)	5.9.1	NP	NP	A star located to the left of the numeral or letter shall designate its main entry level. The main entry level button shall be located in the left most column (refers to ANSI 17.1, 1978 and NE11).
d. Door open symbol	1190.100 (d)(3) (v)	ND A117.1 4.10.2 (2)	5.9.1	NP	NP	A rectangle with triangles on each side pointing away from the rectangle shall designate the door open button. The door open button shall be located under the floor buttons to the left of the close door button, and above the emergency buttons (refers to ANSI 17.1, 1978 and NE11).
e. Door close symbol	1190.100 (d)(3) (v)	ND A117.1 4.10.2	5.9.	NP	NP	A rectangle with triangles on each side pointing toward the rectangle shall designate the door close button. The door close button shall be located under the floor button, to the right of the open door button and above the emergency buttons (refers to ANSI 17.1, 1978 and NE11).
f. Alarm symbol	1190.100 (d)(3) (v)	ND A117.1 4.10.12 (2)	5.9.1	NP	NP	A bell shaped symbol shall designate the emergency alarm button. The emergency alarm button shall be located at the bottom of the control panel with the centerline of the button located at 2'11" - 890 mm above the finished floor, and to the left of the emergency stop button (refers to ANSI 17.1, 1978 and NE11).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
SIGNAGE (cont'd)						
g. Emergency stop	1190.100 (d)(3) (v)	ND A117.1 4.10.2 (2)	5.9.1	NP	NP	An octagon with an "X" in the middle shall designate the emergency stop button. The emergency stop button shall be located at the bottom of the control panel with the centerline of the button located at 2'11" - 890 mm above the finished floor and to the right of the alarm button (refers to ANSI A17.1, 1978 and NEII).
h. Indicator plates	1190.100 (d)(3) (v)	ND A117.1 4.10.12 (2)	5.9.1	NP	NP	Permanently attached, applied plates are an acceptable means to provide the designated character symbols or tactile/visual indicators to the left of the control of floor button (refers to ANSI A17.1, 1978 and NEII).
2. Elevator emergency intercommunication	1190.100 (j) (2)	A117.1 4.10.14	5.9.1	NP	2-5103 B 4	Emergency intercommunications, if provided in accessible passenger elevators, shall be identified with raised (or recessed) lettering or symbols (located adjacent to the device) (refers to ANSI A17.1, 1978 and NEII). Requires sign with lettering not less than 3/16" - 4.76 mm.
3. Elevator floor						
a. Location	1190.100 (e)	ND	5.9.1	NP	2-5103 D 5	Accessible passenger elevators shall provide floor designation markings at each hoistway entrance on both jambs or casings (refers to ANSI A17.1, 1978 and NEII) (so that they are visible from the elevator).
b. Mounting height	1190.100 (e)(1)	ND A117.1 4.10.5	5.9.1	NP	NP	The designation markings, characters or numerals shall be mounted above the floor with their centerlines located at 5'0" - 1,525 mm (located approximately at 5'0" - 1,525 mm) (refers to ANSI A17.1, 1978 and NEII).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
SIGNAGE (cont'd)						
c. Raised or incised	1190.100 (e)(2) 100(c)	ND A117.1 4.10.5	5.9.1	NP	NPTD	The designation markings, characters or numerals shall be raised or incised (requires the characters to be raised) (refers to ANSI A17.1, 1978 and NE11).
d. Character height	1190.100 (e)(2)	ND A117.1 4.10.5	5.9.1	NP	NP	The designation markings, characters, or numerals shall be a minimum of 2" - 50 mm high (refers to ANSI A17.1, 1978 and NE11).
e. Permanently applied plates	1190.100 (e)(3)	A117.1 4.10.5	5.9.1	NP	NP	Permanently applied plates are acceptable for the floor designation door jamb or casing markings (if they are permanently fixed to the jamb) (refers to ANSI A17.1, 1978 and NE11).
4. Telephone						
a. Volume control	NP	NP	5.8.4	NP	NP	Where a volume control equipped telephone is provided a sign shall be posted on all the other phones indicating the location of the volume control phone.
b. Telephone magnetic field	NP	NP	5.8.4	NP	NP	All public telephones equipped with a receiver that generates a magnetic field shall be identified by blue grommets.
5. Bathroom Door						
a. Triangle men symbol	NP	NP	NP	NP	2-1711 (d)(3)	On doorways leading to men's sanitary facilities there shall be an equilateral triangle 1/2" thick with edges 12" long pointing upward.
b. Circle women symbol	NP	NP	NP	NP	2-1711	On doorways leading to women's sanitary facilities there shall be a circle 1/4" thick, 12" in diameter.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
SIGNAGE (cont'd)						
c. Mounting height location	NP	NP	NP	NP	2-1711 (d)(3)	These geometric symbols shall be centered on the door at a height of 5'0" - 1,525 mm. Their color and gray value shall be distinctly different from the color and gray value of the door.
6. Pedestrian traffic control	NP	NP	NP	NP	2-1720 (I)	Pedestrian traffic controls, if provided along outside accessible routes shall be identified with color coding consisting of a textured horizontal yellow band 2" - 50 mm in width encircling the pole. The control is located on and a 1" - 25 mm wide dark border band above and below this yellow band. Color coding should be placed immediately above the control button. Control buttons shall be located no higher than 4'0" - 1,220 mm above the surface adjacent to the pole.
7. Bus stop	NP	NP	NP	NP	2-1720 (J)	Bus stop signs, if provided along outside accessible routes shall be identified by a band 8" - 203 mm in width, which encircles the post supporting the bus stop sign. The band shall be textured and the bottom of the band shall be approximately 4'6" - 1,370 mm above the adjacent surface.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ═══	OSA ▒▒▒	
SIGNAGE (cont'd)						
D. International						
1. Parking and passenger loading	1190.60 (f)	A117.1 4.6.4	4.3.5	NP	2-7102 (d)	The international symbol of accessibility shall be used to identify passenger loading zones, vehicle access routes and reserved accessible parking spaces (does not require signage at passenger loading zones) (does not require signage at vehicle access routes) (does not require signage if there are fewer than 10 parking spaces at site).
a. Surface location	NP	NP	NP	NP	2-7102 (d)	In addition to the signage requirements, the international symbol of accessibility shall be located on the surface of each accessible parking place in white paint at least 3'0" x 915 mm square.
b. Additional signage	NP	NP	NP	NP	2-7102 (d)	Also, a sign shall be posted in a conspicuous place at each entrance to the off-street parking facility, not less than 17 x 22 inches in size with letters not less than one inch in height, which clearly states the following: "Unauthorized vehicles not displaying distinguishing placards or license plates issued for physically handicapped persons shall be towed at owner's expense. Towed vehicles may be reclaimed at____ or by telephoning_____. When a curb mounted sign is used the tow-away notice shall be enforced.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
SIGNAGE (cont'd)						
c. Mounting height	NP	NP	4.3.5	NP	2-7102 (d)	The international symbol shall be mounted at (6'8" - 2,033 mm) (5'0" - 1,525 mm) above the finished grade of the accessible space.
d. Mounting location	NP	NP	4.3.5	NP	2-7102 (d)	The international symbol shall be located at the interior end of the parking space and centered (on a pole or wall at the front of the accessible space).
e. Obscured location	1190.60 (f)	ND A117.1 4.6.4	NP	NP	NP	The international symbol shall be located so that it is not obscured by a vehicle parked in the space.
f. In lieu of	NP	NP	NP	NP	2-7102 (d)	In lieu of providing a freestanding international symbol of accessibility parking sign, a sign mounted on the face of the curb may be provided if it conforms to the following design:
						Vehicles not displaying handicapped license plates or placards will be towed away at owner's expense. Vehicle may be reclaimed at _____ or by telephoning _____. PARKING
						← 4'0" - 1,220 mm → 3 1/2" character square height 2 1/2" all other letters shall be 1" high
2. Building entrances	1190.31 (p)(iii)	A117.1 4.30.2	ND 5.2.2	NP	ND 2-1720 (g)	The international symbol of accessibility shall be used at accessible entrances (requires international symbol only if signage is used, does not require entrances to be marked).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ---	OSA ▪▪▪	
SIGNAGE (cont'd)						
a. Additional	NP	NP	NP	NP	2-1720 (g)	All building entrances that are accessible shall be identified with at least one standard sign and with additional directional signs as required to be visible to persons along approaching pedestrian ways. Where the location of accessible entrances is not obvious, prominently displayed routing signs shall indicate entrance location.
3. Toilet rooms						
a. Entrance door	1190.150 (d)	A117.1 4.30.5	ND 5.6.2	NP	NP	The international symbol shall be used to identify accessible toilet rooms and accessible bathing facilities (only requires the international symbol if facilities are identified).
b. Stall doors	1190.150 (e)(2) (iv)	NP	NP	NP	NP	Accessible toilet stall doors shall have the international symbol of accessibility affixed to the door. The symbol shall be 2 1/2" - 65 mm square.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA	
XV. STAIRS						
A. Number						
1. Exceptions						
a. Elevator	1190.31 (d)	ND A117.1 4.9.1	ND 5.4.1	ND 3305 (a)	NPTD	Stairs connecting levels that are not connected by an elevator shall be accessible (every stairway serving any building or portion thereof).
b. Non-accessible	1190.31 (f) (1)	NP	NP	3305 (a)(c)	NP	Elevator pits, elevator penthouses, mechanical rooms, piping or equipment catwalks are not considered accessible levels (to unoccupied roofs).
c. Dwelling units	NP	A117.1 4.9.1	NP	NP	NP	Accessible specifications are not mandatory for stairs within dwelling units.
B. Width						
1. Private	NP	NP	NP	3305 (b)	NP	Private stairways serving an occupant load of less than 10 may be 2'6" - 763 mm.
2. Occupant 50 or less	NP	NP	NP	3305 (b)	NP	Stairways serving an occupant load of 50 or less may be 3'0" - 915 mm wide.
3. Occupant 50 or more	NP	NP	NP	3305 (b)	NP	Stairways serving an occupant load of 50 or more shall be not less than 3'8" - 1,118 mm wide.
4. Reduction by handrails	NP	4.9.4 (2) 4.4.1	NP	3305 (b)	NP	Handrails may project into the required width a distance of (4" - 100 mm) (3 1/2" - 89 mm) (from each side of a stairway).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
STAIRS (cont'd)						
5. Reduction by trim	NP	NP	NP	3305 (b)	NP	Other nonstructured projections such as trim and similar decorative features may project into the required width 1 1/2" - 38 mm on each side.
C. Risers						
1. Maximum height	1190.80 (b)	NP	NP	3305 (c)	NP	Accessible stairs shall provide a maximum riser height that does not exceed 7" - 180 mm (7 1/2" - 192 mm).
2. Minimum height	NP	NP	NP	3305 (c)	NP	Accessible stairs shall provide a minimum riser height that is not less than 4" - 102 mm.
3. Private exception	NP	NP	NP	3305 (c)	NP	Private stairs serving occupant load less than 10 may be constructed with an 8" - 203 mm rise.
4. Uniform height	NP	A117.1 4.9.2	5.4.2	3305 (c)	NP	Accessible stairs shall have uniform riser heights (the greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8" - 10 mm.
5. Exception uniform height	NP	NP	NP	3305 (c)	NP	Where the bottom riser adjoins a sloping public way, walk or driveway having an established grade and serving as a landing, a variation in height of the bottom riser of not more than 3" - 76 mm in every 3'0" - 915 mm of stairway width is permitted.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
STAIRS (cont'd)						
D. Tread Run						
1. Minimum depth	1190.80 (c)(3)	A117.1 4.9.2	NP	3305 (c)	NPTD	Accessible stairs shall provide a tread or run than suits the stair formula (shall be no less than) (11" - 280 mm) (10" - 254 mm) (measured from riser to riser) measured horizontally between the vertical planes - of the furthermost projection of adjacent treads).
2. Uniform depth	NP	A117.1 4.9.2	ND 5.4.2	ND 3305 (c)	NP	Accessible stairs shall have a uniform tread width.
3. Private exception	NP	NP	NP	3305 (c)	NP	Private stairways serving an occupant load of less than 10 may be constructed with a 9" - 229 mm tread.
E. Nosings						
1. Non-abrupt	NP	A117.1 4.9.2	5.4.3	NP	NP	Accessible stair treads shall not have (the under side of) nosing configurations that are abrupt (or square).
2. Formation	1190.80 (c)(3)	ND A117.1 4.9.3	NP	NP	NP	Accessible stair nosings shall be formed by risers that are sloped or shall have undersides of the nosings which form an angle not less than 60 degrees from the horizontal.
3. Maximum projection	1190.80 (c)(2)	ND A117.1 4.9.3	ND 5.4.3	NP	NP	Accessible stair nosings shall project a maximum of 1 1/2" - 38 mm.
4. Maximum radius	1190.80 (c)(2)	ND A117.1 4.9.3	ND 5.4.3	NP	NP	Accessible stair nosings shall have a leading edge with a maximum radius of curvature of 1/2" - 13 mm.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA	
STAIRS (cont'd)						*Landings for ATBCB, ANSI, OSA and GSA are covered in accessible PEDESTRIAN RAMPS.
F. Landings						
1. Length	*	*	*	3305 (g)	*	Every stair landing shall have a dimension measurement in the direction of travel equal to the width of the stairway. Such dimension need not exceed 4'0" - 1,220 mm when the stair has a straight run.
2. Width reduction	*	*	*	3305 (g)	*	A door swinging over a landing shall not reduce the width of the landing to less than one-half the required width at any position.
3. Water collection	1190.80 (e) .50 (1)(2)	ND A117.1 4.9.6	NP	NP	NP	Accessible stair treads and landing surfaces shall be designed so that their surface will not collect water.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC	OSA	
XVI. STORAGE						
A. Minimum Number	1190.240 (a)(2)	NP	NP	NP	2-710 (a)(3) (A)(6) 2-611 (b)(5) 2-1711 (J)(1) (E)(3)	If storage facilities such as lockers, dressing areas, cabinets, shelves, closets and drawers are provided in accessible spaces for occupant use, at least one storage of each type shall be accessible (where lockers, dressing or fitting areas are provided for public clients, employees, members or participants at least one and not less than one percent of each type shall be made accessible to the physically handicapped).
B. Hardship Exception	NP	NP	NP	NP	2-611 (b) (5-1) 2-812 (1)(2)	Where the enforcing agency determines that compliance would create an unreasonable hardship, exceptions may be granted when equivalent facilities are provided.
C. Clear Floor Area	1190.240 (a)(1)	ND A117.1 4.25.2	NP	NP	NP	Accessible storage shall provide a clear floor area 2'6" - 760 mm in the forward reach direction by 4'0" - 1,220 mm in the side reach direction adjacent to the storage area.
D. Alcove	1190.240 (a)(1)	NP	NP	NP	NP	If accessible storage is located in an alcove, the minimum width of the alcove shall be 2'6" - 760 mm providing the depth of the alcove is less than 2'0" - 610 mm maximum. If the alcove is more than 2'0" - 610 mm deep, the minimum width permitted is 3'0" - 915 mm.
E. Minimum - Maximum Height	1190.240 (a)(2)	ND A117.1 4.25.3	NP	NP	2-812 (c)(2) (2)	Storage spaces shall be located between 4'6" - 1,370 mm maximum height and 9" - 380 mm minimum height, providing the reach access depth is less than 2'0" - 610 mm deep. (allows 4'8" - 1,371 mm maximum height in library stacks if there is an attendant to assist handicapped persons).
F. Height Exception	1190.240 (a)(2)	ND A117.1 4.25.3	NP	NP	NP	Storage spaces shall be no higher than 3'10" - 1,169 mm if the reach access is more than 2'0" - 610 mm deep.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
STORAGE (cont'd)						
G. Clothes Rods	1190.240 (a)(2)	ND A117.1 4.25.3	NP	NP	2-710 (a)(3) (A)(6)	Clothes rods shall be located at 4'6" - 1,370 mm (4'0" - 1,219 mm) above the finished floor and shall not require more than a 1'9" - 535 mm reach (no reach provision).
H. Hardware	1190.240 (a)(3)	A117.1 4.25.4	NP	NP	NP	Accessible storage shall provide hardware, (if provided) that complies with controls and OPERATING MECHANISMS (touch latches and U-shaped pulls are acceptable).
I. Adjoining Access Route	1190.240 (a)(3)	NP A117.1 4.25.4	NP	NP	NP	An accessible storage shall adjoin an accessible route.
J. Dressing Rooms	NP	NP	NP	NP	2-710 (a)(3) (A)(6)	When fitting or dressing rooms are provided, the minimum dimensions of the room shall be 5'0" - 1,525 mm side by 5'0" - 1,525 mm deep.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
XVII. TELEPHONES (PUBLIC)						
A. Number	1190.31 (a) .210(a)	ND A117.1 4.3.1	ND 5.8.1	1713	ND 2-1713 (a)	Where public telephones are provided, they shall be accessible (at least one shall be accessible).
B. Clear Floor Space						
1. Area dimensions	1190.210 (b)	ND A117.1 4.31.2	ND 5.8.3	1713	ND 2-1713 (b)	Accessible public telephones shall have a clear floor or ground space of 2'6" by 4'0" - 760 by 1,220 mm (requires unobstructive access not less than 2'6" - 760 mm wide).
2. Obstructions	1190.210 (b)	ND A117.1 4.31.2	NP	NP	ND 2-1713 (e)	The clear floor or ground space of accessible telephones shall not be restricted by installation of bases, fixed seats or enclosures.
C. Enclosures						
1. Side reach	1190.210 (b)	A117.1 4.31.4 (1)	NP	1713	ND 2-1713 (c)(d)	If enclosures are provided at accessible public telephones that only can be approached from the side approach direction, then the overhang shall be no greater than 1'3" - 380 mm (1'7" - 485 mm) (1'0" - 305 mm from any direction) and the height of the lowest overhanging part shall be no less than 2'3" - 685 mm above the floor finish (does not specify minimum height).
2. Forward reach	1190.210	A117.1	NP	1713	ND 2-1713 (c)(d) (g) (1-3)	If enclosures are provided at accessible public telephones that only can be approached from a forward reach direction and if the overhang is greater than 1'7" - 485 mm (1'0" - 305 mm) (1'0" - 305 mm from any direction), then the clear width of the enclosure shall be 2'6" - 760 mm minimum and the lower overhanging part shall be no less than 2'3" - 685 mm above the floor finish. (allows the closure to be less than 2'6" - 760 mm if the lowest overhanging part is above 2'3" - 685 mm) (does not specify minimum height).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TELEPHONES (PUBLIC) (cont'd)						
3. Full height clear width	1190.210 (b)	ND A117.1 4.31.4 (2)	NP	NP	ND 2-1713 (g)(2)	Entrances to accessible public telephone full height enclosures shall be 2'6" - 760 mm minimum clear width.
4. Clear width reduction	NP	A117.1 4.31.3 (4)	ND 5.8.3	NP	ND 2-1713 (g)(4)	Telephones, telephone enclosures, telephone booth or telephone seats shall not reduce the minimum clear width of accessible routes.
D. Mounting Height						
1. Side reach approach	1190.210 (c)(1)	ND A117.1 4.31.3	ND 5.8.2	1713	ND 2-1713 (f)	For accessible public telephones that only can be approached from the parallel or side reach direction, the highest operable control, including but not limited to dial and coin slots, shall be located at a maximum height of 4'6" - 1,370 mm above the finished floor (does not specify the direction of approach).
2. Forward reach approach	1190.210 (c)(1)	ND A117.1 4.3.3	ND 5.8.2	1713	ND 2-1713 (f)	For accessible public telephones that only can be approached from the forward reach direction, the highest operable control, including but not limited to dial and coin slots, shall be located at a maximum height of 4'0" - 1,220 mm above the finished floor (4'6" - 1,370 mm and does not specify the direction of approach).
3. Diagonal reach approach	1190.210 (c)(1)	A117.1 4.3.4	5.8.2	1713	2-1713 (f)	For accessible public telephones that can be approached from the diagonal reach direction, the highest operable control, including but not limited to the dial and coin slot, shall be located at a maximum height of 4'0" - 1,220 mm (4'6" - 1,370 mm) above the finished floor (does not specify the direction of approach).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TELEPHONES (PUBLIC) (cont'd)						
4. Height exception	1190.210 (c)(1) (1)	NP	NP	NP	NP	Exception--If banks of telephones are provided, a minimum of one telephone per bank shall have the highest operable control at 4'0" - 1,220 mm.
E. Push Buttons	1190.210 (c)(2)	ND A117.1 4.31.6	ND	NP	ND 2-1713 (i)	Accessible public telephones shall have push button controls where service for such equipment is available.
F. Handset Cord Length	1190.210 (c)(3)	ND A117.1 4.31.8	NP	NP	ND 2-1713 (j)	Accessible public telephones shall have a minimum handset cord length from the telephone to the handset of 2'5" - 735 mm.
G. Telephone Books	1190.210 (c)(4)	A117.1 4.31.7	NP	NP	NP	Accessible public telephones shall have telephone books (if provided) located between 4'0" and 1'3" - 1,220 and 380 mm above the finished floor. (located so they can be used by persons in a wheelchair).
H. Special Equipment						
1. Hearing Impaired	1190.210 (d)	ND A117.1 4.31.5	ND 5.8.4	NP	ND 2-1713 (n)	Accessible public telephones shall be equipped with a receiver that generates a magnetic field compatible with hearing aids.
2. Volume control	1190.31 (q) .210 (d)	A117.1 4.31.5	ND 5.8.4	NP	2-1713 (h)	If public telephones (banks of public telephones) are provided in a building or facility, then a reasonable number but always at least one shall be equipped with a volume control.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
XVIII. TOILET AND BATHING FACILITIES						
A. Number						
1. Minimum	1190.31 (k) .32(c)	A117.1 4.22.1	5.6.1	1711 (b)	2-1711 (1)	Each toilet and bathing facility provided shall be accessible (a reasonable number, but always at least one) (only if public) (at least one except if located in dwelling units, guest rooms, or warehouses). (Need not comply when enforcing agency determines that equivalent facility is provided.)
2. Opposite sex/unisex	NP	NP	NP	NP	2-1711 (a)	Where separate facilities are provided for non-handicapped persons of each sex, separate facilities shall be provided for handicapped persons of each sex also. Where unisex facilities are provided for non-handicapped persons, such unisex facilities shall be provided for the handicapped.
3. Alteration exception	1190.150	NP	NP	NP	2-1711	Where alterations (each) to existing facilities make strict compliance with accessible toilet and bathing facilities structurally impracticable, the addition of one "unisex" toilet per floor, containing one water closet and one lavatory that is acessible located adjacent to existing facilities will be acceptable in lieu of making existing toilet facilities for each sex accessible. A minimum of one toilet facility shall be accessible when it is determined that it would not result in handicapped persons experiencing any more difficulty in terms of travel and accessibility.
4. Reasonable distance exception	NP	NP	NP	NP	2-1711 (1)	All sanitary facilities are not required to comply with these regulations when the enforcing authority determines that sanitary facilities are accessible to and usable by physically handicapped persons within a reasonable distance of accessible areas.
5. Accessible location	NP	NP	NP	NP	2-1711	Where sanitary facilities are located on an accessible floor of a building, they shall be made accessible. A minimum of one toilet facility shall be accessible when it is determined that it would not result in handicapped persons experiencing any more difficulty in terms of travel and accessibility.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ═══	OSA ▪▪▪	
TOILET AND BATHING FACILITIES (cont'd)						
6. Water Closets	1190.31 .150(e) (1)	A117.1 4.22.4 4.23.4	ND 5.6.1	ND 1711 (b)	ND 2-1711	In each toilet facility, if toilets or water closets are provided (a reasonable number but always) at least one shall be accessible.
7. Stalls	1190.31 .150(e) (2)	A117.1 4.22.4 4.23.4	ND 5.6.1 5.6.4	ND 1711 (b)	NP	In each toilet facility, if toilet stalls are provided (a reasonable number but always) at least one shall be accessible.
8. Urinals	1190.31 .150 (e)(3)	A117.1 4.22.5 4.23.5	ND 5.6.6	NP	ND 2-1711 (1)(1) (8)(4)	In each toilet facility, if urinals are provided (a reasonable number but always) at least one shall be accessible.
9. Lavatories and sinks	1190.31 .150 (e)(4)	A117.1 4.22.6 4.23.6	NP 5.6.7	ND 1711 (c)	NP	In each toilet facility, if lavatories and/or sinks are provided (a reasonable number but always) at least one shall be accessible.
10. Mirrors	1190.31 .150 (e)(5)	A117.1 4.22.6 4.23.6	ND 5.6.8	NP	NP	In each toilet facility, if mirrors are provided, (a reasonable number but always) at least one shall be accessible.
11. Fixtures	1190.31 .150 (e)(6)	A117.1 4.22.7 4.23.7	ND 5.6.8	NP	NP	Fixtures in each toilet facility, if fixtures, dispensers or receptacles are provided, (a reasonable number but always) at least one shall be accessible.
12. Bathtubs and showers	1190.31 .150(f)	A117.1 4.23.8	NP	NP	ND 2-1711 (j)	In each bathing facility, if any bathtubs and/or showers are provided (a reasonable number but always) at least one shall be accessible.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
13. Lockers	1190.240 (a)(3)	ND A117.1 4.25.4	NP	NP	ND 2-1711 (j)	If lockers are provided in accessible spaces for occupant use at least one locker shall be accessible. **(See STORAGE)**
B. Maneuvering Space						
1. Clear turning space	1190.150 (c)(1)	A117.1 4.22.3 4.23.3	5.6.3	1711 (2)	2-1213 (d)(1) (D) 2-1711 (e)(1)	Each accessible toilet room and bathing facility shall have an unobstructed turning space of 5'0" - 1,525 mm in diameter or a "T" that provides a 5'0" - 1,525 mm minimum deep clear space that is 3'0" - 915 mm wide with the width of the wings of the "T" providing a 3'0" - 915 mm minimum clear space that is at least 5'0" - 1,525 mm deep from tip to tip (does not require the "T") (requires the 5'0" - 1,525 mm clear space to be measured (12") (2'3") (above the floor) (without conflict with overhanging fixtures or plumbing and does not require the "T") (except in dwelling units and guest rooms) (only in multiple accommodation toilet facilities with one or more water closet fixtures that are unlocked) (or a clear space 4'8" by 5'3" - 1,423 mm by 1,601 mm). (Allows 3'0" - 915 mm by 4'0" - 1,220 mm in front of toilet in hotels, motels and dwellings.)
2. Single water closet exception	1190.150 (c)(3) (1)	NP	NP	NP	NP	A clear area that is 2'8" by 5'0" - 813 mm by 1,525 mm located in front of the toilet or water closet may be provided in lieu of a clear turning space in toilet rooms with one water closet and a door in the clear area.
3. Overlap of clear floor space	1190.150 (c)(3)	ND A117.1 4.22.3	ND 5.6.3	1711 (2)	2-1711 (e)(1) 2-1213 (d)(1) (D)	The clear maneuvering space may overlap the accessible route and clear floor space at fixtures (doors in any position) (other than doors to handicapped toilet compartment or stalls) (may encroach into this space by not more than 12" - 305 mm).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
4. Reduction by doors	1190.150 (b)(2)	ND A117.1 4.22.2 4.23.2	5.6.3 5.3.5	1711 (b)(2)	2-1711 (e)(1) 2-1213 (d)(1) (D)	Doors to toilet rooms and bathing facilities shall not swing into the clear floor space at fixtures. (requires if vestibule doors swing in, to provide a clear (level) space of not less than (3'8" - 1,118 mm) (5'0" - 1,525 mm) (and a minimum of 1'6" - 455 mm past the latch side of the door) (measured at right angles to the closed door) (not more than one door may encroach into the space).
5. Doors	1190.150 (b)(1) .130	ND A117.1 4.22.2 4.13	ND 5.6.3	ND 1711	ND 2-1213 2-1711	**Doors to toilet rooms shall comply with accessible DOORS (See Maneuvering Space).**
C. Water Closets						
1. Location	1190.150 (e)(1) (I)	A117.1 4.16.2	ND 5.6.4.1 5.6.4.2	NP	2-1711 (f)(1)	Accessible water closets or toilets shall be located 1'6" - 455 mm measured from the centerline of the toilet or water closet to the non-access wall side or the narrowest wall side (clear access side floor space may be arranged to allow either a left-handed or right-handed approach). (2'4" - 711 mm between the water closet and the wall.)
2. Seat height	1190.150 (e)(1) (III)	ND A117.1 4.16.3	ND 5.6.5	NP	P-1502	Accessible water closets shall have the top of the seats mounted above the floor 1'5" - 430 mm to 1'7" - 485 mm (1'6" - 455 mm) (except hotel, or motel which must be designed to be adaptable to height not less than 1'3" - 381 mm) (where facilities are planned to be used solely by children, the specific height may be adjusted).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ---	OSA ▲▲▲	
TOILET AND BATHING FACILITIES (cont'd)						
3. Spring return seats	1190.150 (e)(1) (ii)	NP	NP	NP	NP	Accessible water closet seats shall not spring to a lifted position when not in use.
4. Flush fixture operation	1190.150 (e)(1) (iii) .170(c)	A117.1 4.16.4	5.6.4	NP	P-1502	Accessible water closets shall have automatic or hand-operated flush controls that shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to operate the mechanism shall be no greater than 5 lbs. of force-2.2 Kg (22.2N) (3 lbs. - 4 Kg) (no provision for automatic or hand operation or force) (specifies oscillating handle operation or a remote low-voltage button) (operable without requiring excessive body movement).
5. Fixture force poundage	1190.130 (c)(1) (iii) .170(c)	A117.1 4.16.5 4.27.4	5.6.5	NP	P-1502	The force required to operate the mechanism shall be no greater than 5 lbs. of force 2.2 Kg (22.2 Kg) (3 lbs. - 4 Kg) (no provision for automatic or hand operation or force) (specifies oscillating handle operating or a remote low-voltage button).
6. Fixture height	1190.150 (e)(1) (iii)	ND A117.1 4.16.5	5.6.5	ND	P-1502	Accessible flush controls shall be mounted on the wide access side no higher above the finished floor than 3'8" - 1,120 mm (does not specify wide side mounting) (mounted so that excessive body movement is not required, does not apply to motel guest rooms).
7. Paper dispenser mounting	1190.150 (e)(1) (iv)	A117.1 4.16.6	NP	NP	2-1711 (1)(B) (3)	Accessible water closets shall have toilet paper dispensers mounted at 1'7" - 485 mm above the floor and no more than 3'0" - 915 mm from the back wall; (within reach) (mounted underneath the grab bar and 12" in front of the front lip of the water closet).
8. Paper flow	1190.150 (e)(1) (iv)	NP	NP	NP	NP	Accessible water closets shall not use toilet paper dispensers that control the delivery or that do not permit continuous paper flow.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
D. Toilet Access Excluding Stalls						
1. Front approach clear floor area	1190.150 (e)(1)	ND A117.1 4.16.2	NP	1711 (b)(3)	2-1711 (e)(2) (g)	Accessible water closets, not installed in stalls, shall have a minimum clear floor space area for front approach direction that is 4'8" - 1,420 mm deep for wall hung or 4'11" - 1,500 mm deep for floor mounted, by 5'0" - 1,525 mm wide. The door shall provide access on the wide access side of the water closet (a clear space not less than 3'6" by 4'0" - 1,067 by 1,220 mm long in front of the water closet) (a 2'4" - 712 mm wide clear space between the fixture or 2'8" - 813 mm wide clear space between a wall and the water closet on one side which is not needed in hotels, motels and dormitories and a 4'0" - 1,220 mm clear space in front of the toilet or water closet. The 4'0" - 1,220 mm clear space may be reduced to 3'10" - 1,169 mm when wall hung toilets are used regardless of direction of approach) (no provision for direction of approach).
2. Encroachment front approach	1190.150 (e)(1) (1)	ND A117.1 4.16.2	NP	NP	ND 2-117 (e)(2)	The lavatory may encroach into the clear floor area providing there is at least a 1'6" - 455 mm minimum clear area measured to the centerline of the toilet or water closet.
3. Exception to front approach	1190.150 (e)(1)	ND A117.1 4.16.2	NP	NP	NP	Accessible front approach water closets, not installed in stalls, may reduce the 5'0" - 1,525 width to 4'0" - 1,220 mm, providing the depth in the direction of approach is at least 5'6" - 1,675 mm.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ═══	OSA ═══	
TOILET AND BATHING FACILITIES (cont'd)						
4. Side approach minimum floor clearance	1190.150 (e)(1)	ND A117.1 4.16.2	NP	1711 (b)(3)	2-1711 (e)(2)	Accessible water closets or toilets not installed in stalls shall have a minimum clear floor area 4'8" - 1,420 mm in either the right-handed or left-handed side approach direction by 5'0" - 1,525 mm for wall hung toilets and shall have a minimum clear floor space 4'11" - 1,500 mm in either the right-handed or left-handed side approach direction by 5'0" - 1,525 mm for floor mounted toilets (a clear space not less than 3'6" by 4'0" - 1,067 by 1,220 mm long in front of the water closet regardless of direction of approach) (If privacy lock is used, a 2'4" - 712 mm wide clear space from the fixture or 2'8" - 813 mm wide clear space from the wall on one side, which is not required in hotels, motels and dormitories and a 4'0" - 1,220 mm clear space in front of toilet or water closet. The 4'0" - 1,220 mm clear space may be reduced to 3'10" - 1,169 mm when wall hung toilets are used (no provision for direction of approach).
5. Encroachment side approach	1190.150 (e)(1)	ND A117.1 4.16.2	NP	NP	NP	Lavatories may encroach into the clear floor area providing there is at least a 1'6" - 455 mm minimum clear area measured to the centerline of the toilet or water closet.
6. Exception to side approach	1190.150 (c)(3) (i)(e) (1)(ii)	NP	NP	NP	NP	If a door encroaches into the required clear turning area, a clear area that is 2'8" by 5'0" - 815 mm by 1,525 mm located in front of the water closet stool may be provided in lieu of the required clear turning area, providing that there is an adjacent clear floor area. The adjacent clear area located to the access side of the water closet shall be 2'6" - 760 mm wide measured from the access side of the water closet by 4'8" - 1,420 mm long for all hung water closets or 4'11" - 1,500 mm long for floor mounted water closets.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
7. Grab bar	1190.150 (e)(1) (v)	ND A117.1 4.16.4	NP	ND 1711 (b)(4)	ND 2-1711 (n)	Accessible water closets not located in stalls shall have grab bars mounted on the rear wall and on the side wall closest to the water closet.
8. Grab bar height	1190.150 (e)(1) (v)	ND A117.1 4.16.4	NP	1711 (b)(4)	2-1711 (c) (e)(2) (n)	The grab bars shall be mounted above and parallel to the finished floor between 2'9" - 940 mm (2'8" - 813 mm) and 3'0" - 915 mm (2'10" - 864 mm) (at 2'9" - 840 mm). (where facilities are to be used solely by children, specific heights may be adjusted). Grab bars shall not project more than 3" - 76.2 mm into the clear space. The grab bars shall be mounted above and parallel to the finished floor between 2'9" - 940 mm (2'8" - 813 mm) and 3'0" - 915 mm (2'10" - 864 mm) (at 2'9" - 840 mm). (where facilities are to be used solely by children, specific heights may be adjusted). The handgrip portion of the grab bars shall comply with HANDGRIPS.
E. Toilet Stalls						(NOTE) There are two types of accessible stalls, ATBCB and GSA require the standard side-transfer stall. In most instances of alterations where the standard side-transfer stall is structurally impractical or plumbing fixture code requirements prevent combining existing stall to provide space, an alternate front-transfer stall may be provided in lieu of the standard side-transfer stall. ANSI states that either stall may be provided. UBC and OSA do not specify the side of the stall but rather require clearance in front of the toilet or water closet.
1. Accessibility	1190.150 (e)(2)	ND A117.1 4.17.2	ND 5.6.5	NP	NP	Accessible toilet stalls shall have accessible toilets or water closets.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
2. Standard side-transfer	1190.150 (e)(2)	ND A117.1 4.17.3	5.6.4.1	1711 (3)	2-1711 (e)(2)	Accessible standard side-transfer toilet stalls shall be 4'8" - 1,420 mm minimum (5'0" - 1,525 mm) by 5'0" - 1,525 mm minimum for floor mounted water closets (no provision for wall hung or floor mounted) (shall provide a clear space not less than 2'6" - 763 mm wide and 4'0" - 1,220 mm long in front of the water closet stool regardless of transfer direction) (shall provide a 4'0" - 1,220 mm in front of a floor mounted water closet stool and a 2'8" - 813 mm adjacent to the accessible side of the water closet stool) and the wall.
3. Alternate front-transfer	1190.150 (e)(2)	ND A117.1 4.17.3	5.6.4.2	1711 (3)	2-1711 (e)(3)	Accessible alternate front-transfer stalls shall be 3'0" - 915 mm minimum to 4'0" - 1,220 mm maximum by 5'6" - 1,675 mm minimum for wall-hung water closet or 5'9" - 1,745 mm minimum for floor-mounted water closets (no provision for the 4'0" - 1,220 mm maximum dimension) (shall provide a clear space not less than 2'10" - 864 mm wide and 4'0" - 1,220 mm long in front of the water closet stool regardless of transfer direction) (shall provide a 3'0" - 915 mm minimum width and a 4'0" - 1,220 mm minimum length in front of the floor-mounted water closet stool and a 3'10" - 1,169 mm minimum length in front of a wall-hung water closet stool).
4. Toe clearance	1190.150 (e)(2) (111)	ND A117.1 4.17.4	NP	NP	NP	Accessible toilet stalls shall have toe clearances, at the front partitions and at least one side partition, above the finished floor of 9" - 230 mm. If the stall depth is greater than 5'0" - 1,525 mm, then toe clearance is optional.
5. Stall Doors						
a. Swing	1190.150 (b)(2)	ND A117.1 4.22.2 4.22.3	ND 4.6.4.1	ND 1711 (b)(3)	ND 2-1711 (e)(3)	Accessible stall doors shall not swing into the clear floor area of fixtures.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
b. Automatic closing devices	NP	NP	NP	NP	2-1711 (e)(3)	Accessible stall doors shall be equipped with an automatic closing device.
c. Width	1190.150 (b)(2) .130(b)	ND A117.1 4.17.5 4.13.5	ND 5.6.5.2	1711 (b)(3)	2-1711 (e)(3)	Accessible stall doors shall be at least 2'8" - 813 mm wide measured with the door open 90 degrees between the face of the door and the latch-side stop (2'6" when the door is located at the front end and 2'10" - 864 mm when located on the side).
d. Clearance	1190.150 (e)(2) (iv) .130(c) (1)(2) (3)	A117.1 4.17.5 4.13.6	5.6.3	1711 (b)(3)	2-1711 (e)(3)	Accessible stall doors shall provide maneuvering door area clearance. For hinge-side approaches the depth measured in the direction of approach shall be the door width plus a 3'0" - 915 mm on the latch side and the width shall be 5'0" - 1,525 mm. For latch-side approaches the depth measured in the direction of approach shall be 4'0" - 1,220 mm, which may be reduced to 3'6" - 1,068 mm. For stalls that can be approached from the front direction only, the depth measured in the direction of approach shall be 5'0" - 1,525 mm and the width shall be the door width plus 1'6" - 458 mm on the latch side (does not allow for the reduction of the 4'0" - 1,220 mm for the latch-side approach) (states the latch side only which is 3'6" - 1,068 mm) (required 3'8" - 1,118 mm wide clearance for any approach).
e. Side transfer	1190.150 (e)(2)	ND A117.1 4.17.3	ND 5.6.4.1	NP	NP	Accessible standard side-transfer stall doors shall be located to provide entrance or access to the wide side of the stall from either the front entrance door or the side entrance door.
f. Front transfer	1190.150 (e)(2)	ND A117.1 4.17.3	ND 5.6.4.2	NP	NP	Accessible alternate front-transfer stall doors shall be located on the front.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
g. Exception to front transfer	NP	NP	5.6.4.2	NP	NP	A side-door entry may be used if a 5'6" - 1,678 mm, for wall-hung water closet, and a 5'9" - 1,754 mm, for floor-mounted water closet, clear stall depth is maintained.
6. Grab bars						
a. Rear wall mounting and extensions	1190.156 (e)(1) (v)	A117.1 4.16.4	NP	1711 (b)(4)	2-1711 (e)(2) (h)	The rear wall grab bar shall be mounted so that it extends 1'0" - 25 mm minimum on each side of the centerline of the water closet, however a 2'0" - 51 mm extension on the wide access side is preferable (requires the grab bar to extend 2'0" - 51 mm on the wide access side) (not less than 2'6" - 763 mm long) (not less than 3'0" - 915 mm long) (does not specify the mounting position in relation to the water closet) (shall not project more than 3" - 76.2 mm into the clear space).
b. Side wall mounting for toilets not located in stalls and side transfer toilets	1190.150 (e)(1) (v)	A117.1 4.16.4	NP	ND 1711 (b)(4)	2-1711 (e)(2) (h)	The side wall grab bar shall be mounted so that it is located on the side wall closest to the water closet no further than 1'0" - 305 mm from the rear wall and shall extend out at least 4'6" - 1,373 mm from the rear wall. For toilets not located in stalls and alternate transfer: 4'4" - 1,320 mm from the rear wall for standard side-transfer stalls mounted in stalls. (3'6" - 1,068 mm long mounted to where it extends 2'0" - 610 mm in front of the water closet stool) the handgrip portion of the grab bars shall comply with HANDGRIPS.
F. Urinals						
1. Clear floor space	1190.150 (e)(3) (i)	ND A117.1 4.18.3	ND 5.6.6	NP	ND 2-1711 (i)(1) (B)(4)	Accessible urinals shall have a clear floor space that is 2'6" - 760 mm wide by 4'0" - 1,220 mm deep.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
2. Extended shield exception	1190.150 (e)(3) (i)(A)	NP	ND 5.6.6	NP	NP	Accessible urinal shields that do not extend beyond the front edge of the urinal rim may be provided with a 2'5" - 735 mm clearance.
3. Height	1190.150 (e)(3) (ii)	ND A117.1 4.18.2	5.6.6	NP	ND P-1503	Accessible urinals shall be floor-mounted stall type or wall hung with an elongated rim, mounted at 1'5" - 430 mm maximum above the floor (1'3" to 1'5" - 381 to 430 mm for wall hung, no provision for stall type).
4. Fixture	1190.150 (e)(3) (iii)	A117.1 4.18.4 4.27.4	5.6.6	NP	NP	Accessible urinals shall have automatic or hand-operated controls, operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate the control shall be no greater than 5 lbs. - 2.2 Kg of force (22.2 N) (only requires hand operated).
5. Fixture height	1190.150 (e)(3) (iii)	ND A117.1 4.18.4	ND 5.6.6	NP	ND	Accessible urinals shall have two controls mounted no higher than 3'8" - 1,118 mm above the finished floor.
6. Child usage	NP	NP	NP	NP	2-1711 (c)	Where facilities are to be used solely by children, the specific height may be adjusted.
G. Lavatories/Sinks						
1. Rim/Counter height	1190.150 (e)(4) (i)(iii)	A117.1 4.19.2 4.24.2	5.6.7	NP	2-1711 (c)	Accessible lavatories and sinks shall be mounted with the rim or the counter surface above the finished floor no higher than 2'10" - 865 mm (has no provision for lavatory rim height) (has no provision for sinks) (where facilities are to be used solely by children, specific heights may be adjusted).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
2. Knee clearance	1190.150 (a)(4) (i)	ND A117.1 4.19.2	5.6.7	1711 (c)(1)	P-1504	Accessible lavatories shall be mounted with at least a clearance height between the bottom of the apron and the finished floor of 2'5" - 735 mm that provides a minimum knee clearance height of 2'3" - 685 mm for the first 8" - 205 mm minimum depth and a toe clearance of 9" - 230 mm minimum height for the last 6" - 150 mm minimum depth. The overall minimum depth shall be 1'5" - 430 mm (1'0" - 305 mm) (requires clear knee clearance height of 2'5" - 735 mm with no provision for depth or toe clearance) (requires 2'3" - 686 mm unobstructed space except for bowl projection and waste piping).
3. Child usage	NP	NP	NP	NP	2-1711 (c)	Where facilities are to be used solely by children specific heights may be adjusted.
4. Sink-knee minimum clearance height	1190.150 (a)(4) (ii)	ND A117.1 4.24.3	NP	NP	ND 2-1711 (1)(1) (A)	Accessible sinks shall provide a minimum knee clearance height of at least 2'3" - 685 mm by 1'7" - 485 mm deep.
5. Knee clearance width	1190.150 (a)(4) (i)(iii)	ND A117.1 4.24.3 4.19.3	NP	NP	2-1711 (1)(1) (A)	Accessible lavatories and sinks shall provide a minimum knee clearance width of 2'6" - 760 mm (has no provision for sinks).
6. Clear floor space overlap	1190.150 (a)(4) (iii)	ND A117.1 4.19.3	NP	NP	2-1711 (1)(1) (A)	The knee clearance for accessible lavatories and sinks shall overlap to clear floor space by its width and a maximum depth of 1'7" - 485 mm (no provision for sinks).
7. Clear floor space	1190.150 (a)(4) (iii)	ND A117.1 4.19.3	5.6.7	NP	2-1711 (1)(1) (A)	Accessible lavatories and sinks shall provide a clear floor space permitting a front approach that is at least 4'0" - 1,220 mm long measured in the direction of approach by 2'6" - 760 mm wide (has no provision for sinks).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
8. Insulation	1190.150 (e)(4) (iv)	ND A117.1 4.19.3 4.24.6	NP	NP	P-1504 (b)	Accessible lavatories and sinks shall provide insulated or covered hot water and drain lines (has no provision for sinks).
9. Hazards	1190.150 (e)(4) (iv)	ND A117.1 4.19.3 4.24.6	NP	NP	P-1504 (c)	Accessible lavatories and sinks shall allow no sharp or abrasive surfaces to remain exposed under the sinks or lavatories (has no provision for sinks).
10. Fixture controls	1190.150 (e)(4) (v)	A117.1 4.19.5	5.6.7	NP	P-1504 (c)	Accessible lavatories and sinks shall provide accessible faucet control fixture designs which include lever-operated, push-type touch-type and electronically controlled mechanisms that are operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate the faucet control shall be no greater than 5 lbs. of force 22 Kg (22.2 N) (no provision for operating force) (no provision for sinks).
11. Self-closing valves	1190.150 (e)(4) (v)	ND A117.1 4.19.5	NP	NP	ND P-1504 (c)	Self-closing valves are permitted at lavatories if the faucet remains open for at least 10 seconds.
H. Mirrors						
1. Mounting height	1190.150 (e)(5)	A117.1 4.19.6	5.6.8	1711 (c)(2)	2-1711 (c) (1)(1) (B)	Accessible mirrors shall be mounted above the finished floor so that the bottom edge of the reflecting surface is no higher than 3'4" - 1,015 mm (only requires the bottom edge to be no higher than 3'4" - 1,015 mm) (where facilities are to be used safely by children, specific heights may be adjusted).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
I. Shelves						
1. Mounting height	NP	NP	5.6.8	NP	NP	Where shelves are provided, at least one shelf shall be mounted no higher than 3'4" - 1,017 mm above the finished floor.
J. Medicine Cabinets	NP	A117.1 4.23.9	NP	NP	NP	If medicine cabinets are provided at least one shall be located with usable shelf no higher than 3'8" - 1,118 mm above the floor and shall have clear floor space.
K. Bathtubs						
1. Access side-approach area	1190.150 (f)(1)	A117.1 4.20.2	NP	NP	2-1213 (d)(1) (c)	Accessible bathtubs shall have a clear floor access area that is the length of the bathtub but not less than 6'3" - 1,900 mm (5'0" - 1,525 mm) in the direction of approach by 2'6" - 760 mm (4'0" - 1,220 mm) for the side-approach direction (regardless of approach direction).
2. Access front-approach area	1190.150 (f)(1)	ND A117.1 4.20.2	NP	NP	2-1213 (d)(1) (d)	Accessible bathtubs shall have a clear floor access area that is 4'0" - 1,220 mm in the direction of approach by the length of the bathtub but not less than 5'0" - 1,525 mm for the forward-approach access direction (regardless of approach direction).
3. Lavatory encroachment	1190.150 (f)(1)	ND A117.1 4.20.2	NP	NP	ND 2-1213 (d)(1) (c)	Lavatories may project into the clear floor access area, provided the seat is accessible.
4. Seat	1190.150 (f)(2)	ND A117.1 4.20.3	NP	NP	2-1213 (d)(1) (E)	Accessible bathtubs shall have seats provided (does not include hotel, motel; however, support backing to accommodate accessible seat is required).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
a. Type	1190.150 (f)(2)	ND A117.1 4.20.3	NP	NP	NP	Accessible bathtub seats shall either be in-tub seats or a ledge seat at the head of the tub opposite the drain, showerhead or operating controls.
b. Mounting	1190.150 (f)(2)	A117.1 4.20.3	NP	NP	NP	Accessible bathtub seats shall (be mounted securely) during use and shall not move (slip) when mounted.
c. Portable	1190.150 (f)(2)	NP	NP	NP	NP	Accessible bathtub in-tub seats shall be portable.
d. Strength	1190.150 (f)(2)	A117.1 4.20.3	NP	NP	NP	Accessible bathtub seats and their attachments shall safely support a 250 lb. - 117 Kgs continuous live load without sustaining permanent deflection (shall comply with structural strength). **See structure strength in Toilet Grab Bars.**
5. Grab bars						
a. Mounting	1190.150 (f)(3)	ND A117.1 4.20.4	NP	NP	NP	Accessible bathtubs shall have grab bars mounted at both the head wall and the side wall parallel to the floor.
b. Side wall mounting height	1190.105 (f)(3)	ND A117.1 4.20.4	NP	NP	NP	Accessible bathtubs shall provide one side-wall grab bar mounted at 9" - 230 mm above the tub lip and another side-wall grab bar mounted above the finished floor between 2'9" and 3'0" - 840 and 915 mm.
c. Side wall in-tub location	1190.150 (f)(3)	ND A117.1 4.20.4	NP	NP	NP	Accessible side wall bathtub grab bars for in-tub seats shall be located within 1'0" - 305 mm of wall where the drain, shower head and operation controls are located and shall be at least 2'0" - 610 mm long and provide a 2'0" - 610 mm maximum clear space at the head end of the tub.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
d. Side wall ledge seat length	1190.150 (f)(3)	ND A117.1 4.20.4	NP	NP	NP	Accessible side wall bathtub grab bars for ledge seats located at the head end of the tub shall be located within 1'0" - 305 mm of the wall where the drain, shower head and operation controls are located and shall be at least 4'0" - 1,220 mm long and provide a maximum 1'3" - 380 mm clear space between the bar and the wall at the head end of the tub.
e. Head wall in-tub seat height	1190.150 (f)(3)	ND A117.1 4.20.4	NP	NP	NP	Accessible head wall bathtub grab bars with in-tub seats shall be located above the finished floor between 2'9" and 3'0" - 840 and 915 mm. Ledge mounted seats shall not have head end grab bars.
f. Head wall in-tub seat location and length	1190.150 (f)(3)	ND A117.1 4.20.4	NP	NP	NP	Accessible head wall bathtub grab bars with in-tub seats shall be located above the outside lip of the tub and shall be at least 1'0" - 305 mm long. Ledge mounted seats shall have head end grab bars.
g. Front wall height	1190.150 (f)(3)	ND A117.1 4.20.4	NP	NP	NP	Accessible grab bars located on the shower head and operating control wall shall be located above the finished floor between 2'9" and 3'0" - 840 and 915 mm.
h. Front wall location and length	1190.150 (f)(3)	ND A117.1 4.20.4	NP	NP	NP	Accessible grab bars located on the shower head and operating control wall shall be located above the outside lip of the tub and shall be at least 2'0" - 610 mm long.
i. Handgrip reference	1190.150 (g) .90(b) (1)(2)	ND A117.2 4.16.4 4.26.2	ND 5.5	ND 3305(j)	NP	The handgrip portion of the grab bar shall comply with HANDGRIPS.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
6. Fixtures						
a. Location	1190.150 (f)(4)	ND A117.1 4.20.5	NP	NP	NP	Accessible bathtub controls and faucets shall be located between the grab bar and the lip of the bathtub toward the outside lip.
b. Operating pressure	1190.150 (f)(4)	ND A117.1 4.27.4	NP	NP	P-1505 (a)	The controls shall be operable with one hand (of single lever design) and shall not require tight pinching, grasping or twisting of the wrists. The force required to activate the controls shall be no greater than 5 lbs. of force 2.2 Kg (22.2N).
c. Shower head hose length	1190.150 (f)(5)	ND A117.1 4.20.6	NP	NP	ND P-1506	Accessible bathtubs shall have a shower spray unit with a flexible hose a minimum of 5'0" - 1,525 mm long that is usable as a fixed shower head and as a hand-held shower.
d. Vandalism exception	1190.150 (f)(5) (1)	NP	NP	NP	NP	In unmonitored facilities where vandalism is a concern, a fixed shower head mounted at 4'0" - 1,220 mm above the tub bottom may be used in lieu of the hand-held unit.
7. Enclosures						
a. Obstructions	1190.150 (f)(6)	ND A117.1 4.20.7	NP	NP	ND P-1506	Accessible bathtubs shall have enclosures, if provided, that do not obstruct transfer from the wheelchair onto seats or tubs or access to controls from the clear access floor area.
b. Tracks	1190.150 (f)(6)	ND A117.1 4.20.7	NP	NP	ND P-1506	Accessible bathtub enclosures if provided shall not have tracks mounted on the bathtub rims.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
c. Shatter-resistant materials	NP	NP	NP	1711(e)	2-1711 (m)(n) (o)	Door and panels of bathtub enclosures shall be substantially constructed from approved shatter-resistant materials (hinged doors shall open out. glazing used indoors and panels of enclosures shall be fully tempered, laminated safety glass or approved plastic. When glass is used, it shall have minimum thickness not less than 1/8" = 3.175 mm tempered and 1/4" = 6.35 mm laminated and shall meet UBC standard No. 54-2. plastic shall be shatter resistant).
L. Shower Stall						
1. Side-transfer floor area	1190.150 (f)(1)	ND A117.1 4.21.2	NP	NP	2-1711 (j)(1) (A)	Accessible side-transfer shower stalls shall have a clear floor access area that is at least 3'0" by 4'0" - 915 by 1,220 mm arranged so that the 4'0" length is adjacent to the open side of the shower stall (3'6" = 1,066 mm by 4'0" = 1,220 mm regardless of type).
2. Roll-in floor area	1190.150 (f)(1)	ND A117.1 4.21.2	NP	NP	2-1711 (j)(1) (A)	Accessible roll-in shower stalls shall hae a clear floor access area that is at least 5'0" by 3'0" - 1,525 mm by 915 mm, arranged so that the 5'0" - 1,525 mm length is adjacent to the 5'0" - 1,525 mm length of the open side of the shower (3'6" = 1,068 mm by 4'0" = 1,220 mm regardless of type).
3. Roll-in area protrusions	NP	A117.1 4.21.2	NP	NP	NP	A lavatory may protrude with the clear floor area of roll-in.
4. Side transfer minimum area	1190.150 (f)(1)	A117.1 4.21.2	NP	NP	2-1711 (j)(1) (A)	Accessible side-transfer shower stall shall be a minimum of 3'0" by 3'0" - 915 mm by 915 mm (the shower stall will fit into the space required for a bathtub) (3'6" = 1,068 mm in width by 4'0" = 1,220 mm in depth with an entrance opening of 3'0" = 915 mm).
5. Roll-in minimum area	1190.150 (f)(1)	ND A117.1 4.21.2	NP	NP	2-1711 (j)(1) (A)	Accessible roll-in shower stall shall be a minimum of 2'6" - 760 mm deep by 5'0" - 1,525 mm long (3'6" = 1,068 mm wide by 4'0" = 1,220 mm in depth with an entrance of at least 3'0" = 915 mm).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	QSA	
TOILET AND BATHING FACILITIES (cont'd)						
6. Group showers	NP	NP	NP	NP	2-1711 (e)(2)	Where group showers are provided and where no separate shower compartments are provided, the physically handicapped shower shall be located in a corner with "L" shaped grab bars extending along two adjacent walls with a folding seat adjacent to the shower controls.
7. Two or more accessible	NP	NP	NP	NP	P-1505 (d)	When there are within the same functional area, two or more showers provided for the physically handicapped, there shall be at least one shower constructed opposite hand from the other or others, i.e., one left hand control vs. right hand controls.
8. Minimum curb height	1190.150 (f)(7)	A117.1 4.21.7	NP	NP	2-1711 (j)(1) (B)	Accessible side-transfer shower stall floors shall have shower curbs or thresholds no higher than 1/2" - 13 mm beveled (or sloped at an angle not exceeding 45° from the horizontal) (no higher than 4" - 100 mm).
9. Minimum roll-in curb height	1190.150 (f)(7)	A117.1 4.21.7	NP	NP	NP	Accessible roll-in shower stall shall have shower curbs or thresholds no higher than 1/2" - 13 mm beveled (shall not have curbs).
10. Floor slope and surface	NP	NP	NP	NP	2-1711 (j)	The shower floor shall slope toward the door to a drain located within 6" - 150 mm of the door wall. The maximum slope of the floor shall be 1/2" - 13 mm inch per foot in any direction. The floor surface shall be carborundum or grit faced tile or of a material providing equivalent slip resistance.
11. Fixtures						
a. Height and location	1190.150 (f)(4)	ND A117.1 4.21.4 4.41.5	NP	NP	ND P-1505 (a)	Accessible shower stall controls shall be located between 2'3" - 965 mm and 4'0" - 1,220 mm above the finished floor, off center on the 5'0" - 1,525 mm wall for roll-in showers and to the front or open access end of the side-transfer stall.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
b. Single lever design	NP	NP	NP	NP	P-1505 (a)	The water control shall be of a single lever design.
c. Operating pressure	1190.170	ND A117.1 4.27.4	NP	NP	NP	The control shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.
d. Operating force poundage	1190.170	ND A117.1 4.27.4	NP	ND	NP	The force required to activate the controls shall be no greater than 5 lbs. - 22 Kg (22.2N).
12. Spray nozzle						
a. Fixed and hand held	1190.150 (f)(5)	ND 4.21.6	NP	NP	NP	Accessible shower stalls shall have a shower spray unit with a flexible hose a minimum of 5'0" - 1,525 mm that is usable as a fixed shower head and as a hand-held unit.
b. Fixed height and location	1190.150 (f)(5)	ND A117.1 4.2.6	NP	NP	NP	Accessible shower units, when mounted as a fixed shower head shall be located 4'6" - 1,370 mm above the floor and if located in a side-transfer stall, shall be mounted 1'6" - 455 mm from the front of the shower opening (has no provision for side-transfer shower stalls).
c. Unmonitored facilities exception	1190.150 (f)(5) (i)	NP	NP	NP	P-1505 (c)	In unmonitored facilities where vandalism is a concern, a fixed shower head, mounted at 4'0" - 1,220 mm above the floor may be used in lieu of a hand-held unit (In lieu of the hand-held unit, two wall-mounted shower heads shall be installed, each shower head shall be controlled so that it can be operated independently of the other and shall have swivel angle adjustments, both vertically and horizontally. One shower head shall be located at the standard height above the floor and the other shall be located at a height of 3'4" - 1,017mm).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA ***	UBC	OSA ΔΔΔ	
TOILET AND BATHING FACILITIES (cont'd)						
13. Soap dishes						
a. Height	NP	NP	NP	NP	2-1711 (v)(1) (3)	Soap dishes for accessible side-transfer stall shall be located no higher than 3'4" - 1.017 mm above the floor on the control wall.
14. Enclosures						
a. Obstructions	1190.150 (f)(6)	ND A117.1 4.21.8	NP	NP	2-1711 (j)(1)	Accessible shower stall enclosures, if provided, shall not obstruct transfer from wheelchairs onto seats or access to controls from clear floor spaces (no provision for blockage of control).
b. Shatter-resistant materials	NP	NP	NP	1711 (e)	2-1711 (m)(n) (o)	Doors and panels of shower enclosures shall be substantially constructed from approved shatter-resistant materials; hinged door shall open out. (Glazing used in doors and panels of enclosures shall be fully tempered, laminated, safety glass or approved plastic. When glass is used, it shall have a minimum thickness not less than 1/8" - 3.175 mm tempered and be 6.35 when laminated and shall meet standard No. 5W-2. Plastic shall be shatter resistant.)
15. Seats						
a. "L" seat height	1190.150 (f)(2)	A117.1 4.21.2	NP	NP	NPTD	Accessible side-transfer shower stalls shall provide an "L" shaped seat that is located above and parallel to the floor 1'6" - 455 mm (1'5" to 1'7" - 432 to 483 mm) (allows for folding seats).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
TOILET AND BATHING FACILITIES (cont'd)						
b. Location	1190.150 (f)(2)	ND A117.1 4.21.2	NP	NP	2-1711 (J)(1) (D)(1)	The long leg of the "L" shaped seat shall be located opposite the control wall and shall run along the entire length of the shower compartment wall. The width of the long leg of the "L" that runs the entire length of the shower compartment wall shall be no more than 1'4" - 405 mm (1'3" - 381 mm) wide. The width of the short leg of the "L" that runs part way along the side wall shall be no more than 1'3" - 381 mm wide out from the wall. The short leg of the "L" may not project into the stall more than 1'11" - 582 mm along the side wall (1'9" - 534 mm).
c. Safety	1190.150 (f)(2)	NP	NP	NP	NP	Seats, when mounted, shall not move during use.
16. Grab bars						
a. Mounting height	1190.150 (f)(3)	ND A117.1 4.21.4	NP	NP	2-1711 (D)(2)	Accessible side-transfer stalls shall provide a grab bar mounted above and parallel to the finished floor between 2'9" and 3'0" - 840 mm and 915 mm (at 3'0" - 915 mm).
b. "L" shape mountings	1190.150 (f)(3)	ND A117.1 4.21.4	NP	NP	2-1711 (D)(2)	Accessible side-transfer stall shall provide an "L" shaped grab bar. The short leg of the side-transfer stall "L" shaped grab bar which is 1'6" - 455 mm (1'9" - 483 mm) long shall be mounted 1'6" - 455 mm (1'9" - 483 mm) from the seat wall providing a clear area over the seat. The long leg of the "L" shaped grab bar shall continue on around, and along the control wall for at least 3'0" - 915 mm.
c. Continuous roll-in stalls	1190.150 (f)(2)	ND A117.1 4.21.4	NP	NP	NP	Accessible roll-in shower stalls shall provide a continuous grab bar around the length and width of three sides of the stall. **See HANDRAILS/HANDGRIPS.**

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC	OSA ▲▲▲	
TOILET AND BATHING FACILITIES (cont'd)						
d. Mounting method	NP	A117.1 4.17.6	NP	NP	NP	Grab bars may be mounted by any desired method as long as they have gripping surfaces at the required locations and do not obstruct the required clear floor area.
e. Projections	NP	NP	NP	NP	NPTD	Grab bars shall not project more than 3" - 76 mm into the clear spaces.
f. Handgrip	1190.150 (g) .90(b) (1)(2)	ND A117.1 4.17.4 4.2.6.2	NP	NP	ND 2-1711 (j)(1) (A)	The handgrip portion of the grab bars shall comply with HANDGRIPS.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	[illegible]	
XIX. WINDOWS						
A. Number	NP	A117.1 4.12	NP	NP	NP	If windows intended to be operated by occupants are provided, then a reasonable number but no fewer than one, of operable windows in each accessible space, shall be accessible.
B. Hardware	NP	A117.1 4.12	NP	NP	NP	Windows requiring pushing, pulling, or lifting to open (for example, double-hung, sliding or casement and awning units without cranks) shall require no more than 5 lbs. - 22.2 N to open or close. Locks, cranks and other window hardware shall comply with CONTROLS and OPERATING MECHANISMS.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
XX. DWELLING UNITS						
A. Alarms		4.34.2.10			NP	Alarms, if provided, shall be accessible. See ALARMS.
B. Controls and Operating Mechanisms		4.34.2.9			NP	Controls such as heating ventilation, air conditioning, light switches shall be accessible. See CONTROLS and OPERATING MECHANISMS.
C. Routes						
1. Required components for routes and spaces		4.34.2			ND 2-1213 (b)	An accessible dwelling unit shall be on an accessible route. See ROUTES and SPACES.
a. Common space reach limitations		4.34.2.1 (3)			NP	Common spaces. Elements and facilities serving accessible dwelling units such as mail boxes and trash disposal areas shall be on an accessible route and be within accessible reach limitations. See CONTROL and OPERATING MECHANISM Reach Limitations.
b. Surfaces		4.34.2.2 (3)			NP	An accessible dwelling unit shall have accessible surfaces and maneuvering spaces. See ROUTES/SPACES.
c. Parking		4.34.2.4			ND 2-1213 (b)	If parking is provided at least one space shall be accessible. See PARKING and PASSENGER LOADING AND UNLOADING ZONES.
d. Entrances/Doors		4.34.2.6.7			ND 2-1213 (b)	Entrances and doors of accessible dwelling units shall be accessible. See DOORS.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ═══	OSA ▪▪▪	
DWELLING UNITS (cont'd)						
(1) Elevators, lifts		NP			2-1213 (b)(4) (6)(b) (3)	Living accommodations served by room elevator or lift shall be accessible.
e. Storage		4.34.2.8			ND 2-1213 (b)(4) (3)	Storage in accessible spaces shall be accessible. See STORAGE.
D. Spaces						
1. Individual rooms		4.34.2 (15)			NP	The following spaces shall be accessible and shall be on an accessible route: (a) the living area; (b) the dining area; (c) the sleeping area or the bedroom in one-bedroom dwelling units or at least two bedrooms or sleeping spaces in dwelling units with two or more bedrooms; (d) patios, terraces, balconies, carports and garages, if provided with the dwelling unit.
2. Notification/ identification of adaptable features		4.34.4			NP	To ensure that the existence of adaptable features will be known to the owner or occupant of a dwelling, the following consumer information shall be provided in each accessible dwelling unit for rent or sale: (1) Notification of the alternate heights available for the kitchen counter and sink, and the existence of removable cabinets and bases, if provided, under counters, sinks, and lavatories; (2) Notification of the provisions for the installation of grab bars at toilets, bathtubs, and showers; (3) Notification that the dwelling unit is equipped to have a visual emergency alarm installed; (4) Identification of the location where information and instructions are available for changing the height of counters, removing cabinets and bases, installing a visual emergency alarm system, and installing grab bar; (continued on next page)

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Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ▬▬	OSA ▪▪▪	
DWELLING UNITS (cont'd)						
2. Notification/ identification of adaptable features (cont'd)						(5) Notification that the dwelling unit has been designed in accordance with American National Standard Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People, ANSI A117.1, 1980. In addition, the renters and buyers of accessible dwelling units shall be provided with the following information: (1) instructions for adjusting or replacing kitchen counter and sink heights and for removing cabinets; (2) A scale drawing showing methods and locations for the installation of grab bars; (3) A scale drawing showing the location of adjustable or replaceable counter areas and removable cabinets; (4) identification of the location of any equipment and parts required for adjusting or replacing counter tops, cabinets, and sinks; (5) instructions for installing a visual emergency alarm system, if the dwelling unit is equipped for such an installation.
3. Kitchens						
a. Accessible route		4.34.6			NP	Kitchens and their components shall be on an accessible route.
b. Minimum clearances		4.34.6.1			ND 2-1213 (b)(4)(1)	Clearances between all opposing base cabinets, counter tops, appliances, or walls shall be (40" - 1,015 mm) (48" - 1,219.2 mm) minimum, except in U-shaped kitchens, where such clearance shall be 60" - 1,525 mm minimum.
c. Reach limitations		4.34.6.2			NP	A clear floor space at least 30" by 48" - 760 mm by 1,220 mm complying with reach allowances that allows either a forward or a parallel approach by a person in a wheelchair shall be provided at all appliances in the kitchen, including the range or cooktop, oven, refrigerator/freezer, dishwasher, and trash compactor. (See CONTROLS and OPERATING MECHANISM Reach Limitations).
d. Controls		4.34.6.3			NP	All controls in kitchens shall be accessible. (See CONTROLS and OPERATING MECHANISMS).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DWELLING UNITS (cont'd)						
e. Counters		4.34.6.4			ND 2-1213 (b)(4) (1)	At least one 30" - 760 mm section of counter shall provide a work surface that complies with the following requirements (1) through (5):
(1) Height		4.34.6.4 (1)			2-1213 (b)(4) (2)	The counter shall be adjustable or replaceable as a unit to provide alternative heights of 28 inches (minimum of 28" - 710 mm) 32 inches and 36 inches - 710 mm, 815 mm and 915 mm, measured from the floor to the top of the counter surface (providing counter is not stone, cultured stone or tile).
(2) Removable base cabinets		4.34.6.4 (2)			ND 2-1213 (b)(4) (2)	Base cabinets, if provided, shall be removable under the full 30" - 760 mm minimum frontage of the counter. The finished floor shall extend under the counter to the wall.
(3) Thickness		4.34.6.4 (3)			2-1213 (b)(4) (2)	Counter thickness and supporting structure shall be 2" - 50 mm maximum over the required clear area. The sink and the work surface may be a single integral unit or separate components. The sides and the back of adjacent cabinets, which may become exposed to moisture or food when a counter top is lowered shall be constructed of durable, nonabsorbent materials appropriate for such use.
(4) Floor space requirements		4.34.6.4 (4)			NP	A clear floor space 30" by 48" - 760 mm by 1,220 mm shall allow a forward approach to the counter. Nineteen inches - 485 mm maximum of the clear floor space may extend underneath the counter. The knee space shall have a minimum clear width of 30" - 760 mm and a minimum clear depth of 19" - 485 mm.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ═══	OSA ▪▪▪	
DWELLING UNITS (cont'd)						
(5) Surfaces		4.34.6.4 (5)			NP	There shall be no sharp or abrasive surfaces under such counters.
f. Sinks						
(1) Height/Width		4.34.6.5 (1)			NP	The sink and surrounding counter shall be adjustable or replaceable as a unit to provide alternative heights of 28 inches, 32 inches and 36 inches - 710 mm, 815 mm, and 915 mm, measured from the floor to the top of the counter surface or sink rim. The total width of sink and counter area shall be 30" - 760 mm minimum.
(2) Plumbing		4.34.6.5 (2)			NP	Rough-in plumbing shall be located to accept connections of supply and drain pipes for sinks mounted at the height of 28" - 710 mm.
(3) Depth		4.34.6.5 (3)			NP	The depth of a sink bowl shall be no greater than 6-1/2" - 165 mm. Only one bowl of double or triple sinks needs to meet this requirement.
(4) Faucets		4.34.6.5 (4)			NP	Faucets shall comply with Controls and Operating Mechanisms. Lever-operated or push-type mechanisms are two acceptable designs.
(5) Removable base cabinets		4.34.6.5 (5)			ND 2-1213 (b)(4) (2)	Base cabinets, if provided, shall be removable under the full 30" - 760 mm minimum frontage of the sink and surrounding counter. The finished flooring shall extend under the counter to the wall.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DWELLING UNITS (cont'd)						
(6) Counter thickness		4.34.6.5 (6)			NP	Counter thickness and supporting structure shall be 2" - 50 mm maximum over the required clear space.
(7) Floor space requirements		4.34.6.5 (7)			NP	A clear floor space 30" by 48" - 760 mm by 1,220 mm shall allow forward approach to the sink. Nineteen inches - 485 mm maximum of the clear floor space may extend underneath the sink. The knee space shall have a minimum clear width of 30" - 760 mm and a clear depth of 19" - 485 mm.
(8) Surface		4.34.6.5 (8)			NP	There shall be no sharp or abrasive surfaces under sinks. Hot water and drain pipes under sinks shall be insulated or otherwise covered.
g. Ranges/Cooktops		4.34.6.6			NP	Ranges and cooktops shall comply with Controls and Mechanisms. If ovens or cooktops have knee spaces underneath, then they shall be insulated or otherwise protected on the exposed contact surfaces to prevent burns, abrasions, or electrical shock. The clear floor space may overlap the knee space if provided, by 19" - 485 mm maximum. The location of controls for ranges and cooktops shall not require reaching across burners.
(1) Ovens		4.34.6.7			NP	Ovens shall comply with CONTROLS and OPERATING MECHANISMS. Ovens shall be of the self-cleaning type or be located adjacent to an adjustable height counter with knee space below. For side-opening ovens, the door latch side shall be next to the open counter space, and there shall be a pull-out shelf under the oven extending the full width of the oven and pulling out not less than 10" - 255 mm when fully extended. Ovens shall have controls on front panels; they may be located on either side of the door.

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA	UBC	OSA	
DWELLING UNITS (cont'd)						
h. Refrigerators/ Freezers		4.34.6.8			NP	Refrigerators/Freezers shall comply with CONTROLS and OPERATING MECHANISMS. Refrigerators shall be: (1) Of the vertical side-by-side refrigerator/ freezer type; or (2) Of the over-and-under type and meet the following requirements: (a) Have at least 50 percent of the freezer space below 54" - 1,370 mm above the floor; (b) Have 100 percent of the refrigerator space and controls below 54" - 1,370 mm. Freezers with less than 100 percent of the storage volume within the limits specified in 4.2.5 or 4.2.6 shall be the self-defrosting type.
i. Dishwashers		4.34.6.9			NP	Dishwashers shall comply with CONTROLS and OPERATING MECHANISMS. Dishwashers shall have all rack space accessible from the front of the machine for loading and unloading dishes.
j. Storage features		4.34.6.10			NP	Kitchen storage shall comply with STORAGE and shall have the following features: (1) Maximum height shall be 48" - 1,220 mm for at least one shelf of all cabinets and storage shelves mounted above work counters. (2) Door pulls or handles for wall cabinets shall be mounted as close to the bottom of cabinet doors as possible. Door pulls or handles for base cabinets shall be mounted as close to the top of cabinet doors as possible.
4. Laundry facilities		4.34.7 (1-3)			NP	Laundry facilities shall comply with Routes and Spaces and Control Mechanisms. Washing machines and clothes dryers in common-use laundry rooms shall be front loading.
5. Sanitary facilities		4.34.2.12 4.34.5			ND 2-1213 (b)(4) (5)	A reasonable number, but always at least one full sanitary facility consisting of a water closet, a lavatory and a bathtub or shower, shall be accessible. (See TOILET and BATHING FACILITIES).

Category/Topic	Standard/Requirement					Summary of Coverage
	ATBCB	ANSI	GSA •••	UBC ▬▬	OSA ■■■	
DWELLING UNITS (cont'd)						
E. Telephones		4.34.2.11			NP	If telephones are installed in dwelling unit, a reasonable number, but always at least one, shall be accessible. (See TELEPHONES).
F. Windows		4.34.2.5			NP	If windows are intended to be operated by occupant then they shall be accessible. (See WINDOWS).

APPENDIX A

GLOSSARY

Access aisle an accessible space between such elements as parking spaces, seating and desks, which provides for use of the elements.

Accessibility the combination of various elements in a building or area which allows access circulation and full use of the building and facilities by the handicapped.

Accessible compliance with the specifications and requirements issued by a standard-setting agency.

Accessible element part of an accessible route or accessible functional space; e.g., items specified by a standard such as telephones, controls, etc.

Accessible route a continuous unobstructed path connecting accessible elements and spaces in a building or facility and complying with the space and reach requirements. Interior accessible routes may include, but are not limited to, corridors, floors, ramps, elevators, lifts, and clear floor space at fixtures. Exterior accessible routes may include, but are not limited to, parking access aisles, curb ramps, walks, ramps, and lifts.

Accessible space a space that complies with the regulations.

Addition refers to an expansion, extension, or increase in the gross floor area of a building or facility.

Aisle a circulation path between objects such as seats, tables, merchandise, equipment, displays, shelves, desks, etc.

Alteration any change in a building or facility or its permanent fixtures or equipment. It includes, but is not limited to, remodeling, renovation, rehabilitation, reconstruction, changes or rearrangement in structural parts, and extraordinary repairs. It does not include normal maintenance, reroofing, interior decoration, or changes to mechanical systems.

ANSI the American National Standards Institute.

Architectural Barriers Act the Architectural Barriers Act of 1968, P.L. 90-480, as amended, 42 U.S.C. 4151, et seq.

Approach direction the direction the person is facing when an accessible element is approached.

Assembly area a room or space accommodating 50 or more individuals for religious, recreational, educational, political, social, or amusement purposes, or for the consumption of food and drink, including all connected rooms or spaces with a common means of egress and ingress.

Assembly building is a building or portion of a building, used as follows:

1. Used or intended to be used for the gathering together of 50 or more persons for purposes of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation or education, or;

2. Any building or structure or portion thereof used or intended to be used for the showing of motion pictures when an admission fee is charged and when such building or structure is open to the public and has a capacity of ten or more persons.

ATBCB the Architectural Transportation Barriers Compliance Board.

Audio loop-type listening system a listening system designed so that it transmits and receives in the same frequency as the sound of a voice (50 hertz [Hz] to 5000 Hz). At the present time audio loops are the most feasible type of listening systems for persons who use hearing aids.

Automatic door a door (1) used for human passage and (2) equipped with power-operated mechanisms and controls that close and open the door upon receipt of a momentary signal.

Baluster any of the small posts that support a handrail.

Building any structure over which state agencies have regulatory power, built for support, shelter, housing or enclosure of persons, animals, chattels, equipment or property of any kind, and also includes structures wherein things may be grown, made, produced, kept, handled, stored, or disposed of. All appendages, accessories, apparatus, appliances, and equipment installed as a part thereof, but "building" shall not include machinery, equipment, or appliances installed for manufacture or process purposes only, nor shall it include any construction installations which are not a part of a building, any tunnel, mine shaft, highway or bridge, or include any house trailer or vehicle which conforms to the Vehicle Code.

Building or facility all or any portion of buildings, structures, equipment, roads, walks, parking lots, parks, sites, or other real property or interest in such property.

Children people below the age of twelve (i.e., elementary school age and younger).

Clear floor or ground area the unobstructed space required to accommodate a single occupied wheelchair.

Clear width an unobstructed, measured distance of an accessible element.

Common areas those interior and exterior spaces available for use by all occupants and users of a building or facility, exclusive of any spaces that are made available for the use of a restricted group of people, or areas whose use is restricted to particular functions.

Common use those interior and exterior rooms, spaces, or elements that are made available for the use of a group of people; e.g., residents of an apartment building, the occupants of an office building, or the guests or residents or occupants.

Cross slope the slope that is perpendicular to the direction of travel (see Running Slope).

Curb ramp a short ramp cutting through a curb or built up to a curb.

Decibels (dB) the measured numerical expression of the relative loudness of an acoustic sound.

Directional sign a publicly displayed notice which indicates by use of words or symbols a recommended direction or route of travel.

Disability any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following bodily systems: neurological; musculoskeletal; special sense organs; respiratory, including speech organs; cardiovascular; reproductive; digestive; genito-urinary; hemic and lymphatic; skin; and endocrine.

Dwelling unit a single unit of residence which provides a kitchen or food preparation area, in addition to rooms and spaces for living, bathing, and sleeping.

Egress or means of egress a continuous and unobstructed way of exit travel from any point in a building or facility to an exterior walk, or out of a fire zone. It includes all intervening rooms, spaces, or elements.

Element an architectural or mechanical component of a building, facility, space, or site; e.g., telephone, curb ramp, door, drinking fountain, seating, water closet.

Elevator hoistway the part of the elevator shaft or well that is traversed by the elevator car.

Enforcing agency the designated department or agency as specified by statute.

Entrance any access point of a building or portion of a building or facility used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform, the entrance platform itself, vestibules (if provided), the entry door(s) or gate(s), and the hardware of the entry door(s) or gate(s).

Equivalent facilitation an alternate means of complying with the literal requirements of standards and specifications that provides access in terms of the purpose of the standards and specifications.

Notes: 1. See Section 2-101, Office of State Architect proposed regulations.

2. In determining equivalent facilitation, consideration must be given to means that provide for the maximum independence of the physically handicapped individual while presenting the least risk of harm, injury, or other hazard to such handicapped persons or others.

Essential features those elements and spaces that make a building or facility usable by, or serve the needs of, its occupants or users. Essential features include but are not limited to entrances, toilet rooms, and accessible routes. Essential features do not include those spaces that house the major activities for which the building or facility is intended such as classrooms or offices.

Exception a special provision in the standard which is an acceptable alternative, under specified circumstances, to a requirement.

Facility (or facilities) a building, structure, room site, complex, or any portion thereof, that is built, altered, improved or developed to serve a particular purpose.

Flared sides the side portion of a ramp that is sloped out away from the main part of the ramp, giving a gradual change in level instead of an abrupt change.

Foot-candle a unit of measurement of illumination.

Grab bar a bar for the purpose of being grasped by the hand for support.

GSA the General Services Administration.

Hertz (Hz) the international unit of frequency, equal to one cycle per second.

High-rise any building more than three stories high.

International symbol of accessibility that symbol adopted by Rehabilitation International's Eleventh World Congress for the purpose of indicating that buildings and facilities are accessible to the physically handicapped.

Kg a kilogram unit of weight, equal to 1,000 grams (one pound = .4536 kilograms [kg]).

Kick plate an abrasion-resistant plate affixed to the bottom portion of a door to prevent a trap condition and protect its surface.

Landing a flat area or platform at the end or in between a flight of stairs or the run of a ramp.

Level area a specified surface that does not have a slope in any direction exceeding 1/4 inch (6.35 mm) in one foot (3.048 mm) from the horizontal (2.083% gradient).

Level or grade change a sudden or gradual difference in height of the ground surface.

Living accommodations any publicly-funded building or portion thereof having three or more apartments as defined in the Uniform Building Code.

Lux a unit of measurement of illumination.

Maneuvering space the amount of space needed for an occupied wheelchair to turn.

Marked crossing a crosswalk or other identified path intended for pedestrian use in crossing a vehicular way.

Mm a millimeter, equal to one thousandth of a meter, or .03937 of an inch.

Mortise and surface mounted bolts either an internal or external dead bolt locking device on or in a door.

Multiple accommodation toilet facility a room that has more than one sanitary fixture, is intended for the use of more than one person at a time, and which usually is provided with privacy compartments or screens shielding some fixtures from view. A bathroom serving a hotel guest room and a privacy toilet in small offices, stores and similar locations are not included in this category.

Newel post the post at the top or bottom of a flight of stairs, or the run of a ramp supporting the handrail.

Nonambulatory persons persons unable to leave a building unassisted under emergency conditions. It includes, but is not limited to, persons who depend upon mechanical aids such as crutches, walkers and wheelchairs, and profoundly or severely mentally retarded persons.

Except for the allowances permitted under Section 2-1050, Office of State Architect proposed regulations, for facilities of six or less capacity, infants shall be considered as nonambulatory persons.

Occupant load the total number of people that could use an accessible element at one time.

Operable part a part of equipment or an appliance used to insert or withdraw objects, to activate or deactivate equipment, or to adjust the equipment (e.g., coin slot, push button, handle).

OSA Office of the State Architect of California.

Pedestrian ramp a surface with a running slope no greater than 1:20 and which is intended to be used primarily for the access of people (rather than loading and unloading).

Physically handicapped person any person who has a disability which substantially limits one or more major life activities, including but not limited to such functions as performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.

Power-assisted door a door (1) used for human passage; and (2) with a mechanism that helps to open the door, or relieve the opening resistance of a door, upon the activation of a switch or a continued force applied to the door itself.

Principal and primary entrance an entrance intended to be used by the residents or users to enter or leave a building or facility. This may include, but is not limited to, the main entrance.

Privacy wall any wall-like structure located between an entrance and an accessible element.

Private the building, facility, or element is not intended for public use.

Protruding object any object that juts out into, or stands in, or in any way could be considered to reduce a clear space for any distance.

Publicly funded as used in this summary does not include loans, grants, guarantees, or other financial assistance provided by a public agency to finance construction, rehabilitation or purchase of privately owned housing accommodations, including housing financed under the Cal Vet program and other privately owned buildings, facilities and structures.

Public use the interior and exterior rooms or spaces that are made available to the general public. Public use may be provided at a building or facility that is privately or publicly owned.

Radio frequency type listening system a listening system so designed that it transmits and receives in a frequency range above the normal voice range, around 50 hertz (Hz) to 5,000 Hz.

Ramp a walking surface that has a running slope greater than 1:20.

Reach position the position of the person relative to the direction of reach toward an accessible element.

Running slope the slope that is parallel to the direction of travel (see Cross Slope).

Sanitary facility any single unit or a combination of water closets, urinals, lavatories, bathtubs, or showers, together with the room or space in which they are housed.

Service entrance an entrance intended primarily for delivery or service.

Sight line or line of sight an unobstructed view from the viewing position to the staging or performing area(s).

Signage the display of written symbolic, tactile, or pictorial information.

Single accommodation sanitary facility a room that has not more than one of each type of sanitary fixture, is intended for use by only one person at a time, has no partition around the toilet, and has a door that can be locked on the inside by the room occupant.

Site a parcel of land bounded by a property line or a designated portion of a public right of way.

Slope the deviation from the horizontal ground plane usually measured by the ratio of the rise to the run.

Sound pressure the loudness of the sound as measured in decibels.

Stair nosing the projecting edge of the tread or run which extends beyond the riser.

Stair riser any of the vertical pieces between the steps or treads in a stairway.

Stair run or treads the horizontal surface of a step in a stairway.

Structural impracticability having little likelihood of a change being accomplished without removing or altering a structure at an increased cost of 50% or more of the value of the element of the building or facility involved.

Tactile warning a surface texture applied to or built into walking surfaces or other elements to warn visually impaired persons of hazards in the path of travel.

Temporary facilities that are not of permanent construction but are extensively used or essential for public use for a given (short) period of time.

UBC the Uniform Building Code of California.

Unreasonable hardship an unreasonable hardship exists when the enforcing agency finds that compliance with the building standard would make the specific work of the project affected by the building standard, unfeasible based upon an overall evaluation of the following factors:

1. The cost of providing access.
2. The cost of all construction contemplated.
3. The impact of proposed improvements on financial feasibility of the project.
4. The nature of the accessibility which would be gained or lost.
5. The nature of the use of the facility under construction and its availability to handicapped persons.

The details of any finding of unreasonable hardship shall be recorded and entered in the files of the enforcing agency.

Vehicular way a route intended for vehicular traffic, such as a street, driveway, or parking lot.

Viewing position a clear space large enough to accommodate either an occupied wheelchair or a portable seat.

Walk an exterior pathway or space with a prepared surface intended for pedestrian use and having a slope of 1:20 or less. It includes general pedestrian areas such as plazas and courts.

APPENDIX B

State and Consumer Services Agency

OFFICE OF STATEWIDE COMPLIANCE COORDINATION
915 Capitol Mall, Suite 235
(916) 323-6975 (Voice or TDD)

Summary of Architectural Standards and Requirements - COMMENT/COPY REQUEST FORM

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